Isabelle Marie-Thérèse Irma Bichindaritz

Curriculum Vitæ		
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# EXPERTISE KEYWORDS

Machine learning, artificial intelligence, case-based reasoning, biomedical informatics, bioinformatics, data science, cognitive science, neuroinformatics, public health informatics, text mining, image mining, multimedia mining, knowledge discovery, knowledge representation, temporal reasoning, knowledge-based systems, complex systems, intelligent tutoring systems

### EDUCATIONAL HISTORY

#### 1990-1994 : Ph. D., Science, Computer Science, Université René Descartes - Paris V, Paris, France Thesis: Incremental Concept Learning in a Dynamic Memory : Case-based Reasoning Adaptive to Cognitive Tasks

Docteur de l'Université René Descartes - Paris V, discipline "Sciences de la Vie et de la Matière",

subdiscipline "Informatique", on the subject "Apprentissage de concepts dans une mémoire dynamique : raisonnement à partir de cas adaptable à la tâche cognitive":

Equivalent of, Ph. D. in Science, Computer Science major, University René Descartes-Paris V, thesis advisor Professor Norbert Cot. Defense, September 8th 1994 (*with Very High Honors*), board of examiners Daniel Kayser (president), Yves Kodratoff and Amédéo Napoli (recorders), Norbert Cot (director), Julien Guelfi and Brigitte Trousse (examiners).

- **1993-1994:** Quantitative psychopathology certificate, Cochin Port-Royal Medical Faculty Paris V, Paris, France (Professor Julien Guelfi).
- **1990-1993: Preclinical medical studies, Pitié-Salpétrière Medical School Paris VI, Paris, France** Diplôme de Premier Cycle d'Etudes Médicales (Université Pierre et Marie Curie – Faculté de Médecine Pitié Salpétrière – Paris VI).
- 1989-1990 : Postgraduate degree, Artificial Intelligence and Pattern Recognition, Université René Descartes - Paris V / Pierre et Marie Curie - Paris VI / Ecole Nationale des Ponts et Chaussées, Paris, France
  - Thesis: ALEXIA: an Analogical Problem-solver Using an Examples Memory Meta-indexed by a Causal Physio-pathological Model Applied to High Blood Pressure Etiology

D.E.A. Intelligence Artificielle Reconnaissance des Formes et Applications (Universités René Descartes - Paris V / Pierre et Marie Curie - Paris VI / Ecole Nationale des Ponts et Chaussées (ENPC)) :

Equivalent of, first year of Ph.D. from the universities Paris V, Paris VI and ENPC, in Artificial Intelligence and Pattern Recognition (*with Very High Honors*) with the following introductory research modules:

- Knowledge Representation (Professor Norbert Cot) (16/20);
- Artificial Intelligence (Professor Monique Baron) (14.5/20);
- Logic and Computer Science (Professor René Lalement) (17/20). Design and implementation of a PROLOG interpreter on finite domains, programmed in LISP (18/20);
- Smalltalk (Professor Jean-François Perrot) (18/20);
- 3 months practicum at the DIAM of INSERM U194 ; DEA thesis "ALEXIA: un système de résolution de problèmes par analogie utilisant une mémoire des exemples méta-indexée par un modèle causal appliqué à la détermination de l'étiologie de l'H.T.A." (Director Brigitte Séroussi) (16/20).

1988-1989 : M.S., Computer Science, Université Pierre et Marie Curie – Paris VI, Paris, France

Maîtrise d'Informatique (Université Pierre et Marie Curie - Paris VI) :

Equivalent of Master's degree in Computer Science from the University Pierre et Marie Curie - Paris VI (*with High Honors*) with the modules:

- M5 (fundamental module, comprised of Systems and Logic) (Professor Denis Piollet) (16/20);
- Logics and Artificial Intelligence (Professor Jean-François Perrot) (16.5/20);
- Signal Processing (Professor Xavier Rodet) (15.33/20);
- Teleprocessing and Networks (Professor Guy Pujolle) (12.73/20, but 3rd best grade in this year);
- Operations Research (Professor Jean-Yves Jaffray) (15/20) (in addition to the four modules required for the Master's degree).
- 1987-1988 : B.S., Computer Science, Université Pierre et Marie Curie Paris VI, Paris, France Programmeur d'Etude (Université Pierre et Marie Curie - Paris VI): Equivalent of, Bachelor of Science from the university Pierre et Marie Curie - Paris VI (with High Honors) (Professor Françoise Madaule) in evening classes (15.5/20).
- **1983-1987 : A.S., Computer Science, Conservatoire National des Arts et Métiers, Paris, France** Diplôme de Premier Cycle Technique en Informatique (Conservatoire National des Arts et Métiers): Equivalent of, A.S., National Museum and College for Arts and Crafts in evening classes and beginning of second stage: Work Organization, Software Engineering (methodologies MERISE, SADT ...) (with Very High Honors).
- **1977-1978: Advanced Mathematics, Lycée Louis-Le-Grand, Paris, France** Classe de Mathématiques Supérieures (Lycée Louis-Le-Grand, Paris).
- 1976 : High-School Diploma, Lycée Michel Montaigne, Bordeaux, France Baccalauréat série C (Lycée Michel Montaigne, Bordeaux): Equivalent of, High School diploma (with Very High Honors, ranked 2<sup>nd</sup> in Bordeaux Academy comprising 13,418 candidates across all disciplines).

# EMPLOYMENT HISTORY

2016-	Associate Professor in Biomedical Informatics, SUNY at Oswego, Computer Science Department Oswego, NY, USA
2012-2016	Assistant Professor in Biomedical Informatics, SUNY at Oswego, Computer Science Department Oswego, NY, USA
2010-2011	<b>Professor in Information Science, Ecole des Hautes Etudes en Santé</b> <b>Publique,</b> Infobiostat Department Rennes, France
2002-2010	Assistant Professor, University of Washington, Tacoma, Institute of Technology, Computing and Software Systems Tacoma, WA, USA
2001-2002	<b>Lecturer, University of Washington, Tacoma</b> , Institute of Technology, Computing and Software Systems Tacoma, WA, USA

2000-2002	Assistant Professor, Central Washington University, Computer Science department Ellensburg, WA, USA
1996-2000	<b>Research Assistant Staff Scientist, Fred Hutchinson Cancer Research Center,</b> Clinical Research Division Seattle, WA, USA
2000	Adjunct Faculty, Evergreen State College, Part-time Studies Program Olympia, WA, USA
1996	Associate Professor (Maître de Conférences), Université de Limoges, Computer Science Department Limoges, France
1993 - 1996	Assistant Professor ( <i>Attachée Temporaire d'Enseignement et de Recherche</i> ), Université René Descartes – Paris V, U.F.R. de Mathématiques et Informatique Paris, France
1993 - 1996	<b>Junior Lecturer (</b> <i>Monitrice de l'Enseignement Supérieur</i> <b>), Université René</b> <b>Descartes – Paris V,</b> Cochin-Port Royal Medical School – Paris V Paris, France

# AWARDS AND HONORS

# NATIONAL

- 2017 Invited Speaker, the Road from Nanomedicine to Precision Medicine, Albany College of Pharmacy.
- **2008** Invited Speaker, Bioinformatics Summit, National Institute of Health, Division of Allergies, Immunology, and Transplantation.

2005- Qualified as Full Professor in Computer Science (*Liste de qualification aux fonctions de Professeur des Universités*), for section 27 (Computer Science) by the Conseil National des Universités (National Universities Council) in France. This list, available online at <a href="http://www.legifrance.gouv.fr/WAspad/UnTexteDeJorf?numjo=MENP0500725K">http://www.legifrance.gouv.fr/WAspad/UnTexteDeJorf?numjo=MENP0500725K</a>, records all the candidates in France entitled to apply to full professor positions in France in computer science (section 27). This means that the national board of French Universities, composed of senior University professors, has entitled me with the required qualification to be a full professor in computer science.

1995- Qualified as Associate Professor in Computer Science (*Liste de qualification aux fonctions de Maître de Conférences des Universités*), for section 27 (Computer Science) by the Conseil National des Universités (National Universities Council) in France. This list, available online at

<u>http://www.legifrance.gouv.fr/WAspad/UnTexteDeJorf?numjo=MENP0500726K</u>, records all the candidates in France entitled to apply to associate professor positions in France in computer science (section 27). This means that the national board of French Universities, composed of senior University professors, has entitled me with the required qualification to be an associate professor in computer science.

- **1990-1993** Fellowship (*Allocataire d'Enseignement et de Recherche*), French Ministry of Higher Education and Research (Ministère de l'Enseignement et de la Recherche).
- **1991 Best paper selection, RFIA'91** conference, which is the annual conference of artificial intelligence and pattern recognition in France. It was consequently published in a journal (**Technique et Science Informatiques**) special issue dedicated to this conference.

INTERNATIONAL

- 2010 Invited Speaker, Industrial Conference on Data Mining.
- 2008 Invited Speaker, European Conference on Case-based Reasoning.
- 2007 Best Paper selection, ICCBR'07 Workshop on CBR in the Health Sciences conference. It will be published in a journal (Computational Intelligence) special issue dedicated to this conference.
- 2007 Best Paper selection, ICDM'07 conference. It has been published in a journal (Engineering Applications in Artificial Intelligence) special issue dedicated to this conference.
- **2006** Best Paper selection, ECCBR'06 Workshop on CBR in the Health Sciences conference. It has been published in a journal (Applied Intelligence) special issue dedicated to this conference.
- 2005 Best Paper selection, ICDM'05 conference. It has been published in a journal (Engineering Applications in Artificial Intelligence) special issue dedicated to this conference.
- 2005 Best Paper selection, ICCBR'05 Workshop on CBR in the Health Sciences conference. It has been published in a journal (Computational Intelligence) special issue dedicated to this conference.
- 2004 Best Paper selection, ECCBR'04 Workshop on CBR in the Health Sciences conference. It has been published in a journal (Artificial Intelligence in Medicine) special issue dedicated to this conference.
- 2002 Influential Paper selection, case-based reasoning research community, to be published in the forth-coming Readings in Case-Based Reasoning, Morgan-Kaufmann, editor Ian Watson, which would become the international reference in case-based reasoning research. Morgan-Kaufman has since decided not to publish any Readings volumes anymore. Nevertheless, the commentaries we have written have been published by the Knowledge Engineering Review journal. I am co-author of the chapter on case-based reasoning in medicine.
- **1998** International Selection to prepare the Web-site and mailing list (<u>www.cbr-biomed.org</u>), case-based reasoning in the health sciences community.

- **1996** Visiting Scholar, Fred Hutchinson Cancer Research Center, a leading biomedical research institute in the world and home of 3 Nobel prizes, where I conducted research in biomedical informatics in the midst of its clinical research division.
- **1995** Senior Research Fellow in Computer Science, University of Portsmouth. This research position, advertised internationally, required a PhD followed by several years of post-doctoral research with international excellence in knowledge-based systems and machine learning, including case-based reasoning. I was ranked first among the 150 candidates. I resigned from this position for familial reasons.

# PUBLICATIONS

# **REFEREED ARCHIVAL JOURNAL PUBLICATIONS**

- Liu, Guanghui., Zhang, W. B., Qian, G., Wang, B., Mao, B., & Bichindaritz, I. Bioimage-based Prediction of Protein Subcellular Location in Human Tissue with Ensemble Features and Deep Networks. *IEEE/ACM transactions on computational biology and bioinformatics*, 2019;
- Marling C., Montani S., Bichindaritz I., Funk P. Synergistic case-based reasoning in medical domains, *Expert Systems With Applications* 41(2), 2014, 249-259 (<u>http://www.sciencedirect.com/science/article/pii/S0957417413003618</u>); (journal impact 3.928)
- **3)** Bichindaritz I., Montani S. Report on the 18<sup>th</sup> International Conference on Case-based Reasoning, *Artificial Intelligence Magazine* 33(1), 2012, 79-82; (journal impact 1.17)
- 4) Liang Chang-yon, Gu Dong-xiao, Bichindaritz Isabelle, Li Xingguo, Zuo Chun-rong, Cheng Wenen. Integrating gray system theory and logistic regression into case-based reasoning for safety assessment of thermal power plants, *Expert Syst. Appl.* 39(5), 2012, 5154-5167; (journal impact 3.928)
- 5) Gu Dong-xiao, Liang Chang-yong, Bichindaritz Isabelle, Zuo Chun-rong, Wang Jun. A casebased knowledge system for safety evaluation decision making of thermal power plants, *Knowl.-Based Syst.* 26, 2012, 185-195; (journal impact 4.529)
- 6) Bichindaritz I., Prototypical Case Mining for Knowledge Maintenance for Biomedical CBR, *Computational Intelligence* 25(3), 2009, 214-234; (journal impact 0.964)
- 7) Bichindaritz I., Role and Significance of Case-based Reasoning in the Health Sciences, *Künstliche Intelligenz*, Vol. 1/09, 2009, 12-17;
- Allampalli-Nagaraj<sup>1</sup> G., Bichindaritz I., Semantic Indexing Of Images Using A Web Ontology Language, *Engineering Applications of Artificial Intelligence*, Vol. 22, Issue 1, 2009, 18-25; (journal impact 2.894)
- 9) Bichindaritz I., Prototypical Case Mining from Biomedical Literature, *Applied Intelligence*, Vol. 28 Number 3, 2008, 222-237; (journal impact 1.904)

<sup>&</sup>lt;sup>1</sup> Graduate student

- Bichindaritz I., Memory Organization as the Missing Link between Case-Based Reasoning and Information Retrieval, *Computational Intelligence*, Vol. 22 Issue 3-4, 2006, 148-160; (journal impact 0.964)
- Bichindaritz, I., Mémoire: a Framework for Semantic Interoperability of Case Bases in Biology and Medicine, *Artificial Intelligence in Medicine*, Special Issue on Case-based Reasoning in the Health Sciences, Bichindaritz, I. (Edt.), Vol 36, Issue 2, 2006, 177-192; (journal impact 2.009)
- 12) Bichindaritz, I., Marling, C., Case-based Reasoning in the Health Sciences: What's Next?, *Artificial Intelligence in Medicine*, Special Issue on Case-based Reasoning in the Health Sciences, Bichindaritz, I. (Edt.), Vol 36, Issue 2, 2006, 127-135; (journal impact 2.009)
- 13) Bichindaritz, I., Akkineni<sup>2</sup>, S., Concept Mining for Indexing Medical Literature, *Engineering Applications of Artificial Intelligence*, Special Issue on Recent Advances in Data Mining, Perner, P. (Edt.), Vol 19, Issue 4, 2006, 411-417; (journal impact 2.894)
- 14) Holt, A., Bichindaritz, I., Schmidt, R., *Medical applications in case-based reasoning*, The Knowledge Engineering Review, 2005, 20(03):289-292 ; (impact factor 1.51)
- 15) Donaldson GW, Moinpour CM, Bush NE, Chapko M, Jocom J, Siadak M, Bradshaw JM, Bichindaritz I, Sullivan KM., Physician Participation in Research Surveys, *Evaluation & the Health Professions*, Vol 22, Number 4, December 1999, 427-441; (journal impact 1.306)
- 16) Bichindaritz I, Siadak MF, Jocom J, Moinpour C, Kansu E, Donaldson G, Bush N, Chapko M, Bradshaw JM, Sullivan KM., CARE-PARTNER: a Computerized Knowledge-Support system for Stem-Cell Post-Transplant Long-Term Follow-Up on the World-Wide Web, *Journal of the American Medical Informatics Association. Symposium Supplement. AMIA Annual Symposium.* Orlando, FL, 1998, 386-390; (journal impact 3.698)
- 17) Léonard, T., Divac, S., Bichindaritz, I., Rouer-Saporta, Samuel-Lajeunesse, B., Selective processing of eating and body words in restricting-type anorexics, binge-eating-type anorexics, bulimics, and control subjects, *Eat Weight Disord*, Mar,2(1), 1997, 17-23 ; (journal impact 1.784)
- Bichindaritz I., Temporal Abstraction and Reasoning for Case-based Reasoning, *Journal of Computing and Information (ICCI-96)*, Vol. 2, Number 1, Waterloo, Canada, 1996, 914-934;
- 19) Bichindaritz I., A Cooperation between Case-Based Reasoning and Conceptual Clustering, *Journal of Computing and Information (ICCI-95)*, Vol. 1, Number 2, Peterborough, Canada, 1995, 560-578;
- 20) Bichindaritz I., A Case-Based Assistant for Clinical Psychiatry Expertise, Journal of the American Medical Informatics Association. Symposium Supplement. 18th Annual Symposium on Computer Applications in Medical Care (SCAMC), Washington D.C., November, 1994, 673-677; (journal impact 3.698)

<sup>&</sup>lt;sup>2</sup> Graduate student

- 21) Bichindaritz I. et Potter<sup>3</sup> S., PhylSyst : un système d'intelligence artificielle pour l'analyse cladistique, *Biosystema N° 12*, décembre, 1994, 17-55 ; (http://lis.snv.jussieu.fr/sfs/old/biosystema-12.shtml)
- 22) Potter<sup>4</sup> S. and Bichindaritz I., User Manual, *Biosystema N*<sup>o</sup> *12*, décembre, 1994, 57-62 ; (http://lis.snv.jussieu.fr/sfs/old/biosystema-12.shtml)
- 23) Bichindaritz I. et Séroussi B., Contraindre l'analogie par la causalité, *Technique et Sciences Informatiques, volume 11, N° 4*, Septembre, 1992, 69-98 ; (acceptance rate 7%)
- 24) Romo-Jimenez ML, Bichindaritz I, Samuel-Lajeunesse B., Measuring the development of eating disorders in a group of patients with the Eating Disorders Inventory", *Ann Med Psychol*, Jun-Jul;153(6), 1995, 402-408 ; (journal impact 0.222)

# CONFERENCE PROCEEDINGS AND OTHER NON-JOURNAL ARTICLES - FULLY REFEREED PUBLICATIONS

# INTERNATIONAL AUDIENCE

- **25)** Bichindaritz, Isabelle, Guanghui Liu, and Christopher Bartlett. Survival Analysis of Breast Cancer Utilizing Integrated Features with Ordinal Cox Model and Auxiliary Loss, *Industrial Conference on Data Mining*, Springer, Cham, 2020 (in press).
- 26) Bartlett, Christopher, Guanghui Liu, and Isabelle Bichindaritz. Classifying Breast Cancer Tissue through DNA Methylation and Clinical Covariate Based Retrieval, *International Conference on Case-Based Reasoning*, Springer, Cham, 2020 (in press).
- 27) Bichindaritz, Isabelle, Guanghui Liu, and Christopher Bartlett. "Survival Prediction of Breast Cancer Patient from Gene Methylation Data with Deep LSTM Network and Ordinal Cox Model." *The Thirty-Third International Flairs Conference*. 2020.
- **28)** Bartlett, Christopher, Guanghui Liu, and Isabelle Bichindaritz. "Case-Based Reasoning for the Analysis of Methylation Data in Oncology." *The Thirty-Third International Flairs Conference*. 2020.
- 29) Christopher L. Bartlett, Isabelle Bichindaritz: Case-based Reasoning for the Analysis of Methylation Data in Oncology. <u>I</u>CCBR Workshops 2019: 108-117.
- **30)** Bartlett, Christopher, and Isabelle Bichindaritz. "Machine Learning Based Classification of Mental Disorders from Methylation Data." *Innovation in Medicine and Healthcare Systems, and Multimedia*. Springer, Singapore, 2019. 355-365.
- **31)** Bartlett, Christopher L., Stephen J. Glatt, and Isabelle Bichindaritz. "Machine Learning and Feature Selection for the Classification of Mental Disorders from Methylation Data." *Conference on Artificial Intelligence in Medicine in Europe*. Springer, Cham, 2019.
- **32)** Bichindaritz, Isabelle. The Case for Case Based Learning, *International Conference on Case-Based Reasoning*, Springer, Cham, 2018, 45-61 ;

<sup>&</sup>lt;sup>3</sup> Graduate student

<sup>&</sup>lt;sup>4</sup> Graduate student

- **33)** Bichindaritz, I., Englebert<sup>5</sup>, C., Regua, A., Kotula, L., Feature Selection and Case-based Reasoning for Survival Analysis in Bioinformatics, 2017 (in press);
- 34) Gu, D., Liu, B., Bichindaritz, I., Lyang, C., Temporal Evolution, Research Themes, and Emerging Trends in Case-Based Reasoning Literature. In Computational Linguistics and Bibliometrics (ClBib) Workshop, 2017 (in press <u>https://easychair.org/cfp/CLBib2017</u>);
- **35)** Barneva, R. P., Bichindaritz, I., Brimkov, V. E., Carbonara, J., Dang, S., Gelsomini, F., ... & Walters, L.A., Multifaceted Approach Towards Education in Data Analytics. In International Conference on Global Research and Education, Springer, Cham, September, 2017, 307-314 ;.
- 36) Gu, D., Li, J., Bichindaritz, I., Deng, S., and Liang, C., The Mechanism of Influence of a Case-Based Health Knowledge System on Hospital Management Systems. In Case-Based Reasoning Research and Development: 25th International Conference, ICCBR 2017, Trondheim, Norway, June 2017, Proceedings (Vol. 10339, p. 139). Springer, 2017, 139-153;
- 37) Bichindaritz, I., Breen, C<sup>6</sup>, Cole, E.<sup>7</sup>, Keshan, N., Parimi, P.V., Feature Selection and Machine Learning based Multilevel Stress Detection from ECG Signals. Proceedings Innovations in Medicine (InMed), 2017, 202-213 ;
- 38) Bichindaritz, I., Marling, C., Montani, S., Recent Themes in Case-based Reasoning and Knowledge Discovery. Florida Artificial Intelligence Research symposium (FLAIRS), 2017, 499-502;
- 39) Englebert, C.<sup>8</sup>, Bichindaritz, I. Quinn, T., Feature Selection and Deep Learning for Survival Analysis, Proceedings on the IJCAI Workshop on Bioinformatics and Artificial Intelligence: Bridging the Gap, 2017, (<u>http://bioinfo.uqam.ca/IJCAI BAI2017/Acceptedpapers.zip</u>)
- 40) Bichindaritz, I., Cole, E. <sup>9</sup>, Keshan, N., Parimi, P.V., Quinn, T., (2016) Machine Learning Based Automatic Multilevel Stress Detection from ECG Signals, Proceedings on the IJCAI Workshop on Knowledge Discovery in Healthcare Data, 2016, (<u>https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnxpa</u> <u>mNhaTIwMTZrZGhIYWx0aHxneDo2ZTZiZjY0NjE0MjgzYWVj</u>)
- 41) Keshan, N., Parimi, P.V., Bichindaritz I., Machine Learning for Stress Detection from ECG Signals in Automobile Drivers, Proceedings of the *IEEE International Conference on Big Data (Big Data)*, 2015, 2449-2457;
- 42) Bichindaritz I., Data Mining Methods for Case-based Reasoning in Health Sciences, Workshop Proceedings of the *International Conference on Case-Based Reasoning*, Joseph Kendall-Morwick (Edt.), Frankfurt, 2015, 184-198;
- 43) Bichindaritz I., Data Mining Methods in Case-based Reasoning, Workshop Proceedings of the International Conference on Case-Based Reasoning, David Leake and Jean Lieber (Edts.), Cork, 2014, 168-181;

<sup>&</sup>lt;sup>5</sup> Graduate student

<sup>&</sup>lt;sup>6</sup> Graduate student

<sup>&</sup>lt;sup>7</sup> Graduate student

<sup>&</sup>lt;sup>8</sup> Graduate student

<sup>&</sup>lt;sup>9</sup> Graduate student

- 44) Bichindaritz I., Case Mining for Research Findings in a Case-based Reasoning System in the Biology of Aging, *KES International Conference on Innovation in Medicine and Healthcare*, Manuel de Grana and Lakhmi Jain (Edts.), San Sebastian, IOS Press, 2014, 203-212 ;
- 45) Bichindaritz I., Medical Literature Mining for Case-based Reasoning in the Biology of Aging, Workshop Proceedings of the *International Conference on Case-Based Reasoning*, Michael Floyd and Jonathan Rubin (Edts.), Saratoga Springs, 2013, 60-71;
- 46) Bichindaritz I., Research Themes in the Case-Based Reasoning in Health Sciences Core Literature. *ICDM 2012*, Springer-Verlag Lecture Notes in Artificial Intelligence, Berlin, 2012, 9-23;
- Bichindaritz I., Architectural Framework for a Case-Based Reasoning System for Data Mining Experience Management. *Industrial Conference on Data Mining - Workshops* 2012, 185-196;
- 48) Bichindaritz I., System Overview: CARE PARTNER A Case-Based Decision Support System for Evidence-Based Medicine. Workshop on Case-based Reasoning in the Health Sciences 2012, 139-145;
- 49) Bichindaritz, I., Methods in Case-Based Classification in Bioinformatics: Lessons Learned. *Proceedings of the Industrial Conference on Data Mining*, Petra Perner (Edt.), Springer-Verlag, Lecture Notes in Artificial Intelligence, New York, 2011, 300-313;
- 50) Gu, G.-X., Liang, C.-Y., Zuo, C.-R., Bichindaritz, I., Wang, J., Chen, W.-E., A Case-Based Enterprise Information System for Thermal Power Plants' Safety Assessment. International Conference on Enterprise Decision Support systems (ICEIS) (2) 2011, 32-39;
- 51) Bichindaritz I., Comparison of Reuse Strategies for Case-Based Classification in Bioinformatics, *Proceedings of the International Conference on Case-Based Reasoning*, Nirmalie Wiratunga and Ashwin Ram (Eds.), London, 2011, 393-359-407;
- 52) Bichindaritz I., Annest A.<sup>10</sup>, Case Based Reasoning with Bayesian Model Averaging: An Improved Method for Survival Analysis on Microarray Data, *Proceedings of the International Conference on Case-Based Reasoning*, Isabelle Bichindaritz and Stefania Montani (Eds.), Alessandria, 2010, 346-359;
- 53) Bichindaritz I., Bioinformatics Contributions to Data Mining, Proceedings of the Industrial Conference on Data Mining, Petra Perner (Edt.), Springer-Verlag, Lecture Notes in Artificial Intelligence, Leipzig, 2010, 17-27; (acceptance rate 26%)
- 54) Mowery C.<sup>11</sup>, Spencer N.<sup>12</sup>, Bichindaritz I., Online Micro-Level Decision Making in Real-Time Strategy Games: A Case-Based Reasoning and Reinforcement Learning Approach, Workshop Proceedings of the *International Conference on Case-Based Reasoning*, Cindy Marling (Edt.), Alessandria, 2010, 35-44;

<sup>&</sup>lt;sup>10</sup> Graduate student

<sup>&</sup>lt;sup>11</sup> Undergraduate student

<sup>&</sup>lt;sup>12</sup> Undergraduate student

- 55) Bichindaritz I., Reed<sup>13</sup> J., Methodology for Classifying and Indexing Case-based Reasoning Systems in the Health Sciences, *Florida Artificial Intelligence Research Symposium*, AAAI Press, North America, mar. 2009. Available at: <u>http://www.aaai.org/ocs/index.php/FLAIRS/2009/paper/view/144</u>. Date accessed: 11 Apr. 2010;
- 56) Bichindaritz I., Reed<sup>14</sup> J.C., Research Trends in Case-Based Reasoning Systems in the Health Sciences, Workshop Proceedings of the *International Conference on Case-Based Reasoning*, Sarah Jane Delany (Edt.), Seattle, 2009, 195-204 ;
- 57) Bodhankar R.<sup>15</sup>, Bindra A., Canilang K., Galgraith S., Hedden G., Bichindaritz I. Computing the Path to Cooking Outside the Box, Workshop Proceedings of the *International Conference* on *Case-Based Reasoning*, Sarah Jane Delany (Edt.), Seattle, 2009, 289-298;
- 58) Reed<sup>16</sup> J., Bichindaritz I., Classifying and Indexing Case-based Reasoning Systems in the Health Sciences, Workshop Proceedings of the *European Conference on Case-Based Reasoning*, Klaus-Dieter Althoff, Ralph Bergmann, Mirjam Minor (Edts.), Trier, 2008, 99-114; (acceptance rate 75%)
- 59) Bichindaritz I., Case-based Reasoning in the Health Sciences: Why It Matters for the Health Sciences and for CBR, *European Conference on Case-Based Reasoning*, Klaus-Dieter Althoff, Ralph Bergmann, Mirjam Minor (Edts.), Springer-Verlag, Lecture Notes in Artificial Intelligence, Trier, 2008, 1-17; (acceptance rate 23%)
- 60) Bichindaritz I., Prototypical Cases for Knowledge Maintenance for Biomedical CBR, *International Conference on Case-Based Reasoning*, Rosina Weber and Michael Richter (Edts.), Springer-Verlag, Lecture Notes in Artificial Intelligence, Belfast, 2007, 492-506 ; (acceptance rate 23%)
- 61) Bichindaritz I., Prototypical Case Guided Case-Based Reasoning in Biomedical Domains, Workshop Proceedings of the International Conference on Case-Based Reasoning, Workshop on CBR in the Health Sciences, David Wilson and Deepak Khemani (Edts.), Belfast, 2007, 273-284 ; (acceptance rate 90%)
- 62) Bichindaritz I., The Role of Prototypical Cases in Biomedical Case-Based Reasoning, *Proceedings of the Industrial Conference on Data Mining*, Petra Perner (Edt.), Springer- Verlag, Lecture Notes in Artificial Intelligence, Leipzig, 2007, 184-198 ; (acceptance rate 26%)
- **63)** Allampalli-Nagaraj<sup>17</sup> G., Bichindaritz I., Semantic Indexing Of Images Using A Web Ontology Language, *Advances in Data Mining, Poster and Workshop Proceedings of the Industrial Conference on Data Mining, Workshop on Data Mining in the Life Sciences*, Isabelle Bichindaritz and Petra Perner (Edts.), Leipzig, 2007, 50-60 ; (acceptance rate 85%)

<sup>&</sup>lt;sup>13</sup> Graduate student

<sup>&</sup>lt;sup>14</sup> Graduate student

<sup>&</sup>lt;sup>15</sup> Graduate student

<sup>&</sup>lt;sup>16</sup> Graduate student

<sup>&</sup>lt;sup>17</sup> Graduate student

- 64) Rajagopal<sup>18</sup> R., Bichindaritz I., Knowledge discovery in the form of prototypical cases using advanced data mining techniques, *Advances in Data Mining, Poster and Workshop Proceedings of the Industrial Conference on Data Mining, Workshop on Data Mining in the Life Sciences*, Isabelle Bichindaritz and Petra Perner (Edts.), Leipzig, 2007, 30-39; (acceptance rate 85%)
- 65) Pantazi, S.V., Bichindaritz, I., Moehr, J.R., The Case for Context-Dependent Dynamic Hierarchical Representations of Knowledge in Medical Informatics, *Information Technology and Communications in Health*, Victoria, CA, 2007
- 66) Bichindaritz I., Prototypical Case Mining from Biomedical Literature, *European Workshop on Case-Based Reasoning Workshop Proceedings*, Mirjam Minor (Edt.), Olüdeniz-Fethiye, 2006 123-137 ; (acceptance rate 87%)
- 67) Bichindaritz I., Named Relationship Mining from Biomedical Literature, *Machine Learning and Data Mining (MLDM) Industrial Conference on Data Mining (ICDM) 2006*, Perner, P. and Ahlemeyer-Stubbe, A. (Edts.), Leipzig, SPRINGER-VERLAG Lectures Notes in Artificial Intelligence, 2006 64-75; (acceptance rate 30%)
- 68) Bichindaritz I., Memory Organization as the Missing Link between Case-Based Reasoning and Information Retrieval, *International Conference on Case-Based Reasoning, Workshop Proceedings*, Brüninghaus, Steffanie (Edt.), Chicago, SPRINGER-VERLAG Lectures Notes in Artificial Intelligence, 2005 18-31; (acceptance rate 87%)
- 69) Bichindaritz I., Akkineni<sup>19</sup> S., Concept Mining for Indexing Medical Literature, *Machine Learning and Data Mining (MLDM) 2005 Industrial Conference on Data Mining (ICDM) 2005*, Perner, P. and Ahlemeyer-Stubbe, A. (Edts.), Leipzig, SPRINGER-VERLAG Lectures Notes in Artificial Intelligence, 2005 682-691; (acceptance rate 58%)
- 70) Bichindaritz I, Mémoire: Case-Based Reasoning Meets the Semantic Web in Biology and Medicine, *European Workshop on Case-Based Reasoning*, Funk, P. and Gonzalez, P. (Edts.), Madrid, SPRINGER-VERLAG Lectures Notes in Artificial Intelligence n° 3155, 2004 47-61 ; (acceptance rate 66%)
- 71) Bichindaritz, I., Potter<sup>20</sup>, S., S.F.S. Knowledge-Based Phylogenetic Classification Mining, *Industrial Data Mining Conference*, Perner, P. (Edt.), Leipzig, SPRINGER-VERLAG Lectures Notes in Artificial Intelligence, 2004 163-172; (acceptance rate 30%)
- 72) Bichindaritz I., Semantic Interoperability of Case Bases in Biology and Medicine, *European Workshop on Case-Based Reasoning Workshop Proceedings*, Gervas, P., and Gupta, K. (Edts.), Madrid, 2004 5-14; (acceptance rate 70%)
- 73) Bichindaritz, I., Marling, C., Case-based Reasoning in the Health Sciences: What Next? *European Workshop on Case-Based Reasoning Workshop Proceedings*, Gervas, P., and Gupta, K. (Edts.), Madrid, 2004 15-24 ; (acceptance rate 70%)

<sup>&</sup>lt;sup>18</sup> Graduate student

<sup>&</sup>lt;sup>19</sup> Graduate student

<sup>&</sup>lt;sup>20</sup> Graduate student

- 74) Bichindaritz, I., Moinpour C., Kansu, E., Donaldson, G., Bush, N., Sullivan, K.M. Case-Based Reasoning for Decision Support in a Safety Critical Environment, *Artificial Intelligence in Medicine Europe*, Dojat M., Keravnou E., and Barahona, P. (Edts), Cyprus, SPRINGER-VERLAG Lecture Notes in Artificial Intelligence n° 2780, 2003 314-323 ; (acceptance rate 37%)
- 75) Bichindaritz I, Kansu E, Sullivan KM, Case-Based Reasoning in CARE-PARTNER: Gathering Evidence for Evidence-Based Medical Practice, *European Workshop on Case-Based Reasoning*, SPRINGER-VERLAG Lectures Notes in Artificial Intelligence n° 1488,1998, 334-345;
- **76)** Bichindaritz I, Apprentissage et Raisonnement à Partir de Cas, In: Raisonnement à Partir de Cas, Bichindaritz I and Mille A (Edts.) ;
- 77) Bichindaritz I., Case-Based Medical Multi-expertise : an Example in Psychiatry, Artificial Intelligence in Medicine Europe, Barahona P., Stefanelli M. and Wyatt J. (Edts), Pavia, SPRINGER-VERLAG Lecture Notes in Artificial Intelligence n° 934, 1995, 395-396;
- 78) Bichindaritz I., Case-Based Reasoning and Conceptual Clustering : For a Co-operative Approach, *Progress in Case-Based Reasoning: Proceedings of the 1st United-Kingdom Workshop on Case-Based Reasoning*, Watson I. and Fahrir M. (Edts), Salford, SPRINGER-VERLAG Lecture Notes in Artificial Intelligence n° 1020, 1995, 91-106;
- 79) Bichindaritz I., Case-Based Reasoning adaptive to several cognitive tasks, *International Conference on Case-Based Reasoning (ICCBR-95)*, Aamodt A. and Veloso M. (Edts), Sesimbra, SPRINGER-VERLAG Lecture Notes in Artificial Intelligence n° 1010, 1995, 391-400; (acceptance rate 58%)
- 80) Bichindaritz I., Solving Safety Critical Issues in a Case-based Reasoning System in Medicine, International Conference on Case-based Reasoning Workshop Proceedings, Trondheim, Norway, 2003 9-18; (acceptance rate 100%)
- 81) Bichindaritz I., Sullivan KM, Generating Practice Cases for Medical Training from a Knowledge-Based Decision-Support System, 6<sup>th</sup> European Conference on Case-based Reasoning Workshop Proceedings, Aberdeen, Scotland, 2002 3-14;
- 82) Bichindaritz I., Kovalerchuk B, An Image Analysis Memory for Imagery Decision Support, *CISST*, Las Vegas, NV, 2001 473-477;
- **83)** Bichindaritz I., A Multimodal Case-Based Reasoning System to Support Long-Term Follow-Up Care over the Internet , *RàPC (Raisonnement à Partir de Cas)*, 1999, 1-6 ;
- 84) Bichindaritz I, Sullivan KM, Integrating Case-Based Reasoning, Rule-Based Reasoning and Information Retrieval for Medical Problem-Solving, AAAI Workshop on Case-Based Integrations, Madison, WI, 1998 122-127;
- 85) Bradshaw JM, Greaves M, Holmback H, Carpenter R, Cranfill R, Jeffers R, Poblete L, Robinson T, Sun A, Gawdiak Y, Cañas A, Suri N, Silverman B, Brooks M, Wong A, Bichindaritz I, Sullivan KM, Mediating Representations for an Agent Design, *Eleventh Annual Knowledge Acquisition Workshop*, Banff, 1998;

- 86) Bradshaw JM, Gawdiak Y, Cañas A, Carpenter R, Chen J, Cranfill R, Gibson J, Hubbard K, Jeffers R, Mathé N, Poblete L, Robinson T, Sun A, Suri N, Wolfe S, Bichindaritz I, Toward an Intelligent Aviation Extranet, *Proceedings of HCI-Aero 98*, Montreal, 1998;
- 87) Bichindaritz I, Sullivan KM, Raisonnement à Partir de Connaissances de Qualité Variée: une Mémoire pour Raisonner à Partir de Cas, de Cas Prototypiques et de Règles, *6ème Séminaire Français de Raisonnement à Partir de Cas*; Ecole des Mines de Paris (abstract and article on the WWW: http://www-cindy.cma.fr/seminaire/Programme.html, bichindaritz.html, bichindaritz.ps), 1998 ;
- 88) Bichindaritz I, Sullivan KM, Reasoning from Knowledge Supported by More or Less Evidence in a Computerized Decision Support System for Bone-Marrow Post-Transplant Care, AAAI Spring Symposium; Stanford, 1998, 85-90;
- **89)** Bichindaritz I. and Conlon E., Temporal Knowledge Representation and Organization for Case-Based Reasoning, *TIME-96*, IEEE Press, 1996, 152-159 ; (acceptance rate 44%)
- 90) Bichindaritz I., Discovering and Reusing Knowledge in Case-Bases when Cases Evolve through Time, *SCAMC-96*; AMIA, Washington D.C., 1996, 842 ;
- 91) Bichindaritz I., MNAOMIA: Reasoning and Learning from Cases of Eating Disorders in Psychiatry, *SCAMC-96*; AMIA, Washington D.C., 1996, 965 ;
- 92) Bichindaritz I., A Memory Model Enabling Case-Based Reasoning to Take Advantage both from Experience and Theory in Clinical Psychiatry, *Florida Artificial Intelligence Research Symposium*, 1996, 155-160;
- **93)** Bichindaritz I., MNAOMIA: Improving Case-Based Reasoning for an Application in Psychiatry, *AAAI Spring Symposium on Artificial Intelligence in Medicine*, Stanford, CA, 1996, 14-20;
- 94) Bichindaritz I., Temporal Reasoning and Learning from Cases for Patients Follow-up, *ITCH-*96, 1996;
- 95) Bichindaritz I., A Memory Model For an Intelligent System for the 21st Century, *IEEE Transactions on Systems Man and Cybernetics*, Vancouver, 1995, 2233-2238;
- 96) Bichindaritz I., A Memory Model for Reasoning both from Experimental and from Theoretical Knowledge, *Scandinavian Conference on Artificial Intelligence (SCAI-95)*, A. Aamodt and J. Komorowski (Edts), Trondheim, IOS-Press, 1995, 348-352;
- 97) Bichindaritz I., A case-based reasoning system adaptive to the cognitive task, *Florida Artificial Intelligence Research Symposium (FLAIRS-95 on Intelligent Adaptive Systems)*, I. Imam and J. Wnek (Edts), Melbourne Beach, Florida, 1995, 146-159;
- 98) Bichindaritz I. and Mirabel-Sarron C., An Artificial Intelligence Methodology for Assisting Cognitive Therapy in Psychiatry, *Information Technology Issues in Community Health Care*, Victoria, Canada, 1994, 12.2-12-6;

- 99) Bichindaritz I., A Case-Based Reasoning System using a Control Case-Base, European Conference on Artificial Intelligence, T. Cohn (Edt), Amsterdam, 1994, 38-42; (acceptance rate 26%)
- 100) Bichindaritz I., Case-based Reasoning in Psychiatry : A Tool to Assist Diagnosis, Treatment and Research, *Neural Networks and Expert Systems in Medicine and Healthcare*, Plymouth, 1994, 477-484 ;
- 101) Bichindaritz I., Case-Based Reasoning in Psychiatry, First World Congress on Computational Medicine, Public Health and Biotechnology, Austin, 1994;
- **102)** Bichindaritz I., Concept Learning in a Real-World Domain, International Symposium on the Management of Industrial and Corporate Knowledge, Compiègne, 1993, 77-85 ;
- 103) Bichindaritz I. and Séroussi B., ALEXIA : un système de résolution de problèmes à partir de cas utilisant une mémoire d'exemples méta-indexée par un modèle causal, *Journées Françaises d'Apprentissage*, Sète, 1991, 5-24 ; (acceptance rate 52%)

### NATIONAL AUDIENCE

- Bichindaritz I., From Cases to Classes : Focusing on Abstraction in Case-Based Reasoning,
   4th German Workshop on Case-Based Reasoning, 1996, 25-34 ;
- 105) Bichindaritz I., Apprentissage à partir de cas: un nouveau paradigme pour découvrir et réutiliser des connaissances dans les bases de cas, Vème Séminaire Français de Raisonnement à Partir de Cas, 1996, 91-100;
- 106) Bichindaritz I. (Edt), Du Raisonnement à Partir de Cas aux Mémoires Conceptuelles : Situation de l'Apprentissage dans le Raisonnement à Partir de Cas, Actes du IVème Séminaire Français de Raisonnement à Partir de Cas, Université René Descartes, 1995, 91-109 ;
- 107) Bichindaritz I., Apprentissage incrémental de concepts sur les questionnaires alimentaires de patients des troubles du comportement alimentaire, *Rencontres Informatique et Psychiatrie*, Nice, 1993, 127-133 ;
- **108)** Bichindaritz I. and Séroussi B., Validité a priori des inférences produites par un raisonnement à partir de cas : objectivation de l'analogue par des critères de ressemblance fonctionnellement quantifiés, *AFCET-RFIA*, Lyon-Villeurbane, 1991, 1151-1158 ;

### **CONFERENCE PROCEEDINGS AND OTHER NON-JOURNAL ARTICLES -REFEREED BY ABSTRACT ONLY**

- 109) Regua, Angelina, Isabelle Bichindaritz, Tiffany Caza, Julie R. White, Alexander Nappi, Claudia Mondragon, Mira Krendel, Gennady Bratslavsky, Abirami Sivapiragasam, and Leszek Kotula. "Abi1 positively regulates lung metastasis of aggressive breast cancer in PyMT mouse model." AACR (2018): 108-108.
- Regua, A., Bichindaritz, I., Caza, T., White, J., Adamiecki, R., Krendel, M., Bratslavsky, G., Kotula. L., Loss of Abi1 abrogates lung metastasis in the PyMT mouse model of breast cancer, AACR 2017, 3404-3404 ;.

- **111)** Quinn TP, Tylee DS, Bichindaritz IB, & Glatt SJ. April 2016. Constructing Generalizable Classifiers for the Classification of Complex Biological Disorders. Poster presented at Machine Learning Symposium, New York Academy of Sciences, New York.
- 112) Bichindaritz I, Siadak MF, Jocom J, Moinpour C, Kansu E, Donaldson G, Bush N, Chapko M, Sullivan KM, Secure Java Applets and Applications: Guidelines and Lessons Learnt from the Java Security Model, In *American Medical Informatics Association Annual Symposium, JAMIA Supplement*, November 1999, 1028;
- **113)** Bichindaritz I., Bone-marrow post-transplant care application of data mining, In *ACM SIGBIO*, Special Issue on Biomedical Applications of Knowledge Discovery and Data Mining, December 1998, Volume 18, Number 3, 3 ;
- 114) Bichindaritz I, Bradshaw JM, Sullivan KM, Distributed Reuse of Knowledge in a Computerized Decision Support System for Bone-Marrow Post-Transplant Care over the World-Wide Web, *Journal* of the American Medical Association, AMIA Annual Symposium Nashville, TN, 1997, 844 (full article on the conference CD-ROM);

### **BOOKS EDITED**

- 115) Bichindaritz I., Jain, L. (Edts.), Computational Intelligence in Healthcare, Springer Verlag Series in Knowledge-based Systems, 2010
- **116)** Bichindaritz I., Montani S. (Edts.), Case-based Reasoning Research and Development, 18<sup>th</sup> International Conference on Case-based Reasoning, ICCBR 2010, Springer Verlag LNCS/LNAI, 2010

### PARTS OF BOOKS (CHAPTERS IN EDITED BOOKS)

- 117) Bichindaritz I., Marling C., *Case-Based Reasoning in the Health Sciences: Foundations and Research Directions*, Springer Verlag Series in Knowledge-based Systems, 2010
- 118) Bichindaritz I., Memory Structures and Organization, In : *Case-Based Reasoning for Signals and Images*, Petra Perner (Edt.), Springer-Verlag, 2007
- **119)** Bichindaritz I., Intelligence artificielle : une aide à la recherche clinique, In : *La quantification en psychopathologie*, Guelfi J.D., Masson, 1995, 67-76 ;
- 120) Foulon C., Gaillac V. and Bichindaritz I., Troubles psychiatriques associés aux troubles du comportement alimentaire, *Les Conduites Alimentaires*, Samuel-Lajeunesse B. and Foulon C. (Edts), Masson, 1994, 119-130 ;

### JOURNAL ISSUES AND CONFERENCE PROCEEDINGS EDITED

- 121) Bichindaritz, I., Marling, C., Montani S. (Edts.), *Proceedings of the Workshop on Case-based Reasoning in Health Sciences,* Otzenhusen, Germany, September 2020;
- 122) Koch, F., Koster, A., Bichindaritz, I., & Herrero, P. (2019). Artificial Intelligence in Health, IJCAI Workshop Proceedings, Stockholm, Sweden, July 13-14, . Springer International Publishing, Lecture Notes in Computer Science, Vol. 11326, 244 pages.
- 123) Bichindaritz, I., Marling, C., Montani S., Borck, H., and Bach, K. (Edts.), Proceedings of the Workshop on Synergies between Case-based Reasoning and Machine Learning Stockholm, Sweden, July 2018, 60 pages;

- 124) Bichindaritz, I., Marling C., Montani S. (Edts.), Proceedings of the Workshop on Synergies between Case-based Reasoning and Knowledge Discovery Atlanta, GA, October 2016, 53 pages (https://drive.google.com/open?id=0B9jujSTJ2C nYm5HeUhwbW9kNG8);
- 125) Bichindaritz, I., Marling C., Montani S. (Edts.), Proceedings of the Workshop on Case-based Reasoning in the Health Science, Franksfurt, September 2015, 44 pages (<u>http://ceur-ws.org/Vol-1520/health\_proc.pdf</u>);
- 126) Corchado, J., Bichindaritz, I., De Paz, J. (Edts.) Distributed Artificial Intelligence Models for Knowledge Discovery in Bioinformatics, *Biomed Research International*, 2015, in press
- 127) Bichindaritz, I., Marling C., Montani S. (Edts.), *Proceedings of the Workshop on Synergies* between Case-based Reasoning and Data Mining, Cork, September 2014, 90 pages ;
- 128) Bichindaritz I., Marling C., Montani S. (Edts), Preface for the special section on case-based reasoning in the health sciences, *Expert Systems With Applications*, 41(2), 247-248 (2014) (<u>http://www.sciencedirect.com/science/article/pii/S0957417413003606</u>); (journal impact 3.928)
- 129) Montani, S., Bichindaritz, I., Marling C. (Edts.), *Proceedings of the eighth Workshop on Case*based Reasoning in the Health Sciences, Université de Lyon, September 2012, 90 pages ;
- 130) Bichindaritz, I., Perner P., Ruß G., Schmidt R. (Edts.), *Advances in Data Mining, 12th Industrial Conference, ICDM 2012, Berlin, Germany, July 2012, Workshop Proceedings*, Workshop on Case-Based Reasoning CBR-MD 2012, Workshop on Data Mining in Agriculture DMA 2012, Workshop on Data Mining in Life Sciences DMLS 2012, Workshop on Data Mining in Marketing DMM 2012. IBaI Publishing 2012, isbn 978-3-942952-16-3;
- 131) Bichindaritz I., Montani S. (Edts.), *Artificial Intelligence in Medicine*, Advances in Case-based Reasoning in the Health Sciences, 51(2) 2011, 75-79 ; (journal impact 2.009)
- 132) Bichindaritz I., Montani S., Introduction to the Special Issue on Case-based Reasoning in the Health Sciences, *Computational Intelligence*, 25(3), 2009, 161-164; (journal impact 0.964)
- Bichindaritz I., Potter S. and Sigwalt B. (Edts.), Biosystema N° 12, PhylSyst : Logiciel de Reconstruction Phylogénétique, December 1994 ; (<u>http://lis.snv.jussieu.fr/sfs/old/biosystema-12.shtml</u>)
- 134) Bichindaritz I., and Montani, S. (Edts.), *Computational Intelligence*, Special Issue on Case-based Reasoning in the Health Sciences, 2008 ; (journal impact 0.964)
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- 136) Bichindaritz, I., Perner, P., Shapiro, L. (Edt.), *Advances in Data Mining*, Institute for Computer Vision, July 2008, 170 pages ;
- 137) Bichindaritz, I., and Montani, S. (Edts.), *Proceedings of the Sixth Workshop on Case-based Reasoning in the Health Sciences*, University of Trier, September 2008, 60 pages ;
- **138)** Bichindaritz, I., and Montani, S. (Edts.), *Proceedings of the Fifth Workshop on Case-based Reasoning in the Health Sciences*, University of Ulster, September 2007, 110 pages ;
- **139)** Bichindaritz, I. (Edt.), *Proceedings of the Workshop on Data Mining in the Life Sciences*, Institute for Computer Vision, July 2007, 52 pages ;

- **140)** Bichindaritz I., and Marling, C. (Edts.), *Computational Intelligence*, Special Issue on Case-based Reasoning in the Health Sciences, 2006, 84 pages ; (journal impact 0.964)
- 141) Bichindaritz, I., and Montani, S. (Edts.), *Proceedings of the Fourth Workshop on Case-based Reasoning in the Health Sciences*, Universität Trier, September 2006, 77 pages ;
- **142)** Bichindaritz, I. (Edt.), *Proceedings of the Workshop on Data Mining in the Health Sciences*, Institute for Computer Vision, July 2006, 55 pages ;
- 143) Bichindaritz I. (Edt.), *Artificial Intelligence in Medicine*, Special Issue on Case-based Reasoning in the Health Sciences, 2005, 74 pages ; (journal impact 2.009)
- 144) Bichindaritz, I., and Marling, C. (Edts.), *Proceedings of the Third Workshop on Case-based Reasoning in the Health Sciences*, De Paul University, August 2005, 81 pages ;
- 145) Bichindaritz, I., and Marling, C. (Edts.), *Proceedings of the Second Workshop on Case-based Reasoning in the Health Sciences*, Universidad Completense de Madrid, September 2004, 81 pages ;
- 146) Bichindaritz, I., and Marling, C. (Edts.), *Proceedings of the Workshop on Case-based Reasoning in the Health Sciences*, NTNU, June 2003, 88 pages ;
- 147) Bichindaritz I, Mille A, Napoli A (Edts), *Revue d'Intelligence Artificielle*, Special issue on casebased reasoning, January 1999;
- 148) Bichindaritz I. (Edt.), Actes du IVème Séminaire Français de Raisonnement à Partir de Cas (Proceedings of the 4th French Workshop on Case-based Reasoning), University René Descartes, April 1995;

### **TECHNICAL REPORTS**

- **149)** Bichindaritz I., *Apprentissage de concepts dans une mémoire dynamique : raisonnement à partir de cas adaptable à la tâche cognitive*, Ph.D. Thesis, University René Descartes, September 1994 ;
- 150) Bichindaritz I., ALEXIA : un système de résolution de problèmes par analogie utilisant une mémoire des exemples méta-indexée par un modèle causal appliqué à la détermination de l'étiologie de l'H.T.A., Rapport de stage de DEA, EHEI, University René Descartes-Paris V, 1990 ;

# STUDENTS PUBLICATIONS

- **151)** Breen, C., Bichindaritz, I., Colletta, S. K., & Roeder, O. (2018). JustoCat Pet Robot and Patient Care: A Study of Benefits Provided to Elderly Dementia Patients, Caregivers and Health Care Providers. In *AMIA*.
- **152)** Miles, J., Szakielo, D., Kiddle, A., & Bichindaritz, I. (2018). Using Machine Learning to Predict Falls in Inpatient Rehabilitation Residents. In *AMIA*.
- **153)** Wells<sup>21</sup>, L., Hess, J., Glatt, S., Bichindaritz. I. Schizophrenia Genome Wide Association Study with Machine Learning, SUNY Today and Tomorrow Research Symposium, Albany, 2017 ;
- **154)** Chase<sup>22</sup>, J., Bichindaritz, I., Design of an Online Rabies Vaccination Information System, *American Medical Informatics Association Annual Symposium*, 2014, 1339 ;

<sup>&</sup>lt;sup>21</sup> Graduate student

<sup>&</sup>lt;sup>22</sup> Graduate student

- 155) Annest<sup>23</sup> A., Bumgarner R.E., Raftery A.E., Yeung K.Y., Iterative Bayesian Model Averaging for the Application of Survival Analysis to High-Dimensional Microarray Data, BMC Bioinformatics, 2009, 10-72; (journal impact 2.448)
- 156) Potter<sup>24</sup> R., Constructing More Accurate Phylogenetic Trees for Highly Divergent Sequences Using Clustal W, Advances in Data Mining, Poster and Workshop Proceedings of the Industrial Conference on Data Mining, Workshop on Data Mining in the Life Sciences, Isabelle Bichindaritz, Petra Perner, Linda Shapiro (Edts.), Leipzig, 2008, 116-127 ; (acceptance rate 85%)
- **157)** Hill, Seth<sup>25</sup>, R-Trees: the Dynamic Solution for Multidimensional Data, *Undergraduate Research Symposium Posters 2008*, US Seattle, 2008 ;
- 158) Dillard<sup>26</sup> L., Annest<sup>27</sup> A., Predicting Lung Cancer Prognosis from Gene Expression Levels, Advances in Data Mining, Poster and Workshop Proceedings of the Industrial Conference on Data Mining, Workshop on Data Mining in the Life Sciences, Isabelle Bichindaritz and Petra Perner (Edts.), Leipzig, 2007, 61-72 ; (acceptance rate 85%)
- 159) Potter<sup>28</sup> R., Comparison of Classification Algorithms Applied to a Breast Cancer Dataset, Advances in Data Mining, Poster and Workshop Proceedings of the Industrial Conference on Data Mining, Workshop on Data Mining in the Life Sciences, Isabelle Bichindaritz and Petra Perner (Edts.), Leipzig, 2007, 40-49 ; (acceptance rate 85%)
- Spiz<sup>29</sup> Michael Szymon, Using Latent Semantic Indexing for Data Deduplication, *Industrial Conference on Data Mining Posters 2006*, Leipzig, 2006, 37-48;

### **OTHER SIGNIFICANT RESEARCH DISSEMINATION**

- 161) <u>http://www.cbr-biomed.org</u>;
- **162)** accepted at Workshop IJCAI-95 : Practical development strategies for industrial strength case-based reasoning (CBR) applications , Montréal, Canada, August 1995 ;
- **163)** "PhylSyst", Bichindaritz I., Potter S. and Société Française de Systématique, Agence pour la Protection des Programmes, ISBN 94-37-004-00, 1994 ;

# OTHER SCHOLARLY ACTIVITY

### **Invited lectures and seminars**

- 1. Winter Session, SUNY Oswego, Oswego First Coursera Course Development, 1/11/2017
- 2. Cognitive Approaches to Machine Learning", CNY Biotech Accelerator, 2/8/2016
- 3. SUNY Upstate visit, SUNY Oswego, 5/13/2015
- 4. Health Care Careers Conference, SUNY Oswego, 3/12/2013
- National Institute of Health, Division on Allergies, Immunology, and Transplantation, "Casebased Knowledge Representation within the Knowledge Spectrum and the Statistical Challenge", 10/2008

<sup>28</sup> Graduate student

<sup>&</sup>lt;sup>23</sup> Graduate student

<sup>&</sup>lt;sup>24</sup> Graduate student

<sup>&</sup>lt;sup>25</sup> Undergraduate student

<sup>&</sup>lt;sup>26</sup> Graduate student

<sup>&</sup>lt;sup>27</sup> Graduate student

<sup>&</sup>lt;sup>29</sup> Graduate student

- 6. University of Trier, Germany, "Case-based Reasoning in the Health Sciences: Why It Matters for Casebased Reasoning and for the Health Sciences", 9/2008
- Institute of Technology, University of Washington, "Case-Based Reasoning in the Life Sciences", 3/2002
- 8. Computer Science Department, Central Washington University, "A Computerized Knowledge-Support System for Stem-Cell Post-Transplant Care on the WWW", 6/2000
- 9. Northwest Artificial Intelligence Foundation, Seattle, "A Computerized Knowledge-Support System for Stem-Cell Post-Transplant Care on the WWW", 4/20/98
- 10. Selected Topics in Health Informatics Seminar, University of Washington, "A Knowledge-Based Computerized Decision-Support Assistant for Stem-Cell Post-Transplant Care on the WWW", 3/31/98
- 11. Clinical Division Faculty presentation, FHCRC, "Development of the Long-Term Follow-Up Computerized Decision-Support System", 2/3/98
- 12. Clinical Division Faculty presentation, FHCRC, "The Computerized Decision Support System for Bone-Marrow Post-Transplant Care on the WWW: System and Study Design", 5/13/97
- 13. Psychology Department Seminar, University of Washington, "From Case-Base Reasoning to Case-Based Learning in a Computerized Decision Support System for Bone-Marrow Post-Transplant", 3/4/97
- 14. Presentation to the seminar of the U.F.R. de Mathématiques et Informatique (Université Paris-V), that I co-organized with **Professor Dominique Pastre**, June 1996
- 15. Invited by **Professor Jerzy Korczak** to the seminar of the U.F.R. de Mathématiques et Informatique (Université de Strasbourg), May 1996
- 16. Invited by **Professor Daniel Pacholczyk** to the seminar of the U.F.R d'Informatique (Université d'Angers), May 1996
- 17. Invited by **Professor Franck Poirier** to the seminar of the I.U.T. d'Informatique (Université de Bretagne-Sud), May 1996
- Invited to present my work at the tutorial of Robert Macura about Case-based Reasoning, at SCAMC-95 (New Orleans), 1995
- Invited by Professor Jean-François Perrot to the workshop of the group << Objects, Models and Knowledge>> at LAFORIA (Université Paris-VI), March 1995
- 20. Invited by Jacques Matthieu at the GDR (Research Group) <<Analogy and similitude>> of the PRC (Research Domain) <<Cognitive Sciences>> at LAFORIA (Université Paris-VI), December 1994
- 21. Invited by Professor Daniel Goujet at the French Systematics Society Annual Meeting (Muséum National d'Histoire Naturelle), December 1994
- 22. Bulletin de l'AFIA dedicated to case-based reasoning, July 1994
- 23. Invited by Jean Lieber, organizer of the 3rd French Workshop on Case-based Reasoning, for an oral presentation at the INRIA-CNRS of Nancy; communication title : <<Case-based reasoning to help clinical expertise in psychiatry>>, April 1994
- 24. Thursday Workshop of Sainte-Anne Hospital, organized by Professor Guelfi, January 1994
- 25. LIAP-5 Workshops, 1993, 1994
- 26. Monday Meetings organized at the Clinique des Maladies Mentales et de l'Encéphale by Professor Samuel-Lajeunesse, 3 presentations in 1993, 2 presentations in 1994
- 27. **DEA d' intelligence artificielle IARFA** (Paris-V, Paris-VI, Ecole Nationale des Ponts et Chaussées) (1 intervention in 1993), **DESS double compétence** (Paris-V) (1 intervention in 1992)
- 28. Invited by Michel Dojat in an INSERM Service (University of Créteil), 1992.

### Presentations given at conferences

- 1. ICCBR Conference, Germany, 9/2020, Case-based Reasoning for the Analysis of Methylation Data in Oncology.
- 2. KES Innovations in Medicine and Health (Inmed) Conference, Malta, 6/2019, Machine Learning Based Classification of Mental Disorders from Methylation Data.
- 3. Artificial Intelligence in Medicine Europe, Poznan, Poland, 6/2019, Machine Learning and Feature Selection for the Classification of Mental Disorders from Methylation Data.
- 4. International Conference on Case-based Reasoning, Trondheim, Norway, 7/2017
- 5. Innovations in Medicine, Vilamoura, Portugal, 6/2017
- 6. Grace Hopper Celebration of Women in Computer Science, Houston, TX, 10/2016

- Data Analytics Across Disciplines, "An Innovative Educational Framework for Interdisciplinary Educational Collaboration for Biomedical Data Science Based on Online Open Education Resources", Buffalo, 5/19/2016
- 8. International Joint Conference on Artificial Intelligence, "Machine Learning Based Automatic Multilevel Stress Detection from ECG Signals", 7/9/2016
- 9. International Conference on Case-based Reasoning, Frankfurt, Germany, 9/2015
- 10. International Conference on Case-based Reasoning, Cork, Ireland, 9/2014
- 11. International Conference on Innovation in Medicine and Healthcare, San Sebastian, Spain, 7/2014
- 12. LORIA, Université de Lorraine, Nancy, France, 6/2013
- 13. International Conference on Case-Based Reasoning, Lyon, France, 9/2012
- 14. Industrial Conference on Data Mining, Berlin, Germany, 7/2012
- 15. Industrial Conference on Data Mining, Berlin, Germany, 7/2010
- 16. International Conference on Case-Based Reasoning, Alessandria, Italy, 7/2010
- 17. International Conference on Case-Based Reasoning, Seattle, Washington, 7/2009
- 18. Florida Artificial Intelligence Research Symposium, Captiva Island, Florida, 5/2009
- 19. European Conference on Case-based Reasoning, Trier, Germany, 9/2008
- 20. Sixth Workshop on Case-based Reasoning in the Health Sciences, Trier, Germany, 9/2008
- 21. Workshop on Data Mining in the Life Sciences, Leipzig, Germany, 7/2008
- 22. International Conference on Case-based Reasoning, Belfast, UK, 9/2007
- 23. Fifth Workshop on Case-based Reasoning in the Health Sciences, Belfast, UK, 9/2007
- 24. Industrial Data Mining Conference, Leipzig, Germany, 7/2007
- 25. Workshop on Data Mining in the Life Sciences, Leipzig, Germany, 7/2007
- 26. Fourth Workshop on Case-based Reasoning in the Health Sciences, Oludeniz, Turkey, 9/2006
- 27. Industrial Data Mining Conference, Leipzig, Germany, 7/2006
- 28. Workshop on Data Mining in the Life Sciences, Leipzig, Germany, 7/2006
- 29. International Conference on Case-based Reasoning, Chicago, USA, 8/2005
- 30. Third Workshop on Case-based Reasoning in the Health Sciences, Chicago, USA, 8/2005
- 31. Industrial Data Mining Conference, Leipzig, Germany, 7/2005
- 32. International Conference on Case Based Reasoning, Chicago, USA, 8/2005
- 33. Third Workshop on Case Based Reasoning in the Health Sciences, Chicago, USA, 8/2005
- 34. Industrial Data Mining Conference, Leipzig, Germany, 7/2005
- 35. European Conference on Case Based Reasoning, Madrid, Spain, 9/2004
- 36. Second Workshop on Case Based Reasoning in the Health Sciences, Madrid, Spain, 9/2004
- 37. Industrial Data Mining Conference, Leipzig, Germany, 7/2004
- 38. International Conference on Case Based Reasoning, Trondheim, Norway, 6/2003
- 39. New Zealand Case Based Reasoning Workshop, Auckland, New Zealand, 1/2003
- 40. European Conference on Case Based Reasoning, Aberdeen, 9/2002
- 41. International Conference on Imaging Science, Systems and Technology (CISST), Las Vegas, 6/2001
- 42. American Medical Informatics Association (AMIA) Annual Symposium, Washington, 11/1999
- 43. American Medical Informatics Association (AMIA) Annual Symposium, Orlando, 11/1998
- 44. European Workshop on Case-Based Reasoning, Dublin, Ireland, 9/1998
- 45. AAAI Workshop on Case-Based Reasoning (CBR) Integrations, Madison, 7/26/1998
- 46. American Association for Artificial Intelligence (AAAI) Spring Symposium on Multimodal Reasoning, Stanford, 3/24/1998
- 47. Séminaire Français de Raisonnement à partir de cas, Paris, France, 12/11/1997
- 48. American Medical Informatics Association (AMIA) Annual Symposium, Nashville, 10/28/1997.

### **Professional society memberships**

American Association on Artificial Intelligence, member American Medical Informatics Association, member; IEEE, member; Sigma XI, member; Association for Computing Machinery, member.

### **Research Workshops Attended**

- Deep Learning International Summer School, at Deusto University, Bilbao, Spain, from 7/17/2017 to 7/21/2017.
- Big Genomic Data Skills Bioinformatics Graduate Professors Workshop, at The Jackson Laboratory for Genomic Medicine, Connecticut, from 5/15/2017 to 5/19/2017.
- Tensorflow Training workshop at Upstate Medical University, from 6/28/2016 to 6/30/2016.
- Causal Discovery Workshop at Carnegie Mellon University, Pittsburgh, from 6/13/2016 to 6/16/2016.
- Metabolomics Workshop at the University of Michigan, Ann Harbor, from 5/10/2016 to 5/12/2016.
- Grant Writing workshop in Syracuse on 2/18/2016 and 2/19/2016.

#### Work as a referee or reviewer

Journal on Data Mining and Digital Humanities (<u>http://jdmdh.episciences.org/page/editorial-team</u>), Editor (2013-);

On going reviewer for the following journals:

- \* Artificial intelligence in medicine
- \* Applied intelligence
- \* Engineering applications of artificial intelligence
- \* IEEE transactions on systems, man, and cybernetics
- \* Expert systems with applications
- \* Pattern recognition journal
- \* Personalized Medicine journal

IJCAI 2020 (International Conference on Artificial Intelligence), Senior Program Committee member;

ECAI Workshop on Knowledge Discovery in Health 2020 (European Conference on Artificial Intelligence), Senior Program Committee member ;

ICCBR 2020 (International Conference on Case-based Reasoning), Program Committee member;

ICCBR 2020 Doctoral Consortium (International Conference on Case-based Reasoning), Program Committee member;

AIME 2021 (Artificial Intelligence in Medicine Europe), Program Committee Member;

**KDIR 2020 (10<sup>th</sup> International Conference on Knowledge Discovery and Information Retrieval)**, Program Committee member;

IJCAI 2019 (International Conference on Artificial Intelligence), Senior Program Committee member;

ICCBR 2019 (International Conference on Case-based Reasoning), Program Committee member;

ICCBR 2019 Doctoral Consortium (International Conference on Case-based Reasoning), Program Committee member;

MIE 2019 (Medical Informatics Europe), Program Committee Member;

MEDINFO 2019 (International Conference on Medical Informatics), Reviewer;

**KDIR 2019 (9<sup>th</sup> International Conference on Knowledge Discovery and Information Retrieval)**, Program Committee member; KES 2019 (International Conference on Knowledge Based and Intelligent Information \* Engineering Systems), Program Committee member;

InMed 2019 (nternational Conference on Innovations in Medicine), Program Committee member;

AAAI 2017 (International Conference on Artificial Intelligence), Reviewer;

IJCAI 2017 (International Conference on Artificial Intelligence), Reviewer;

ICCBR 2017 (International Conference on Case-based Reasoning), Program Committee member;

MIE 2017 (Medical Informatics Europe), Program Committee Member;

MEDINFO 2017 (International Conference on Medical Informatics), Reviewer;

**KDIR 2017 (8<sup>th</sup> International Conference on Knowledge Discovery and Information Retrieval)**, Program Committee member;

KES 2017 (International Conference on Knowledge Based and Intelligent Information \* Engineering Systems), Program Committee member;

InMed 2017 (nternational Conference on Innovations in Medicine), Program Committee member;

Grace Hopper Celebration of women in Computing 2016, Data Science track, reviewer;

ICCBR 2016 (International Conference on Case-based Reasoning), Program Committee member;

MIE 2016 (Medical Informatics Europe), Program Committee Member;

AMIA 2016 (American Medical Informatics Association Annual Symposium), Reviewer;

CBMS 2016 (Computer Based Medical Systems), Program Committee Member;

**KDIR 2016 (7<sup>th</sup> International Conference on Knowledge Discovery and Information Retrieval),** Program Committee member;

Biomed Research International Journal special issue on "Distributed Artificial Intelligence Models for Knowledge Discovery in Bioinformatics, co-Guest Editor with Professors Juan Manuel Corchado and Juan Francisco de Paz (2016);

Grace Hopper Celebration 2015, Big Data track, Program Committee member;

ICCBR 2015 (International Conference on Case-based Reasoning), Program Committee member;

11<sup>th</sup> Case-based Reasoning in the Life Sciences workshop of ICCBR 2015 (International Conference on Case-based Reasoning), Co-chair;

MIE 2015 (Medical Informatics Europe), Program Committee Member;

AMIA 2015 (American Medical Informatics Association Annual Symposium), Reviewer;

CBMS 2015 (Computer Based Medical Systems), Program Committee Member;

FLAIRS 2015 (Florida Artificial Intelligence Research Symposium), Program Committee member;

**KDIR 2015 (7<sup>th</sup> International Conference on Knowledge Discovery and Information Retrieval),** Program Committee member;

Biomed Research International Journal special issue on "Distributed Artificial Intelligence Models for Knowledge Discovery in Bioinformatics, co-Guest Editor with Professors Juan Manuel Corchado and Juan Francisco de Paz (2015);

ICCBR 2014 (International Conference on Case-based Reasoning), Program Committee member;

1st Synergies between Case-based Reasoning and Data Mining workshop of ICCBR 2014 (International Conference on Case-based Reasoning), Co-chair;

MIE 2014 (Medical Informatics Europe), Program Committee Member;

ECAI 2014 (European Conference on Artificial Intelligence), Program Committee Member;

ESWC 2014 (European Semantic Web Conference), Program Committee Member;

FLAIRS 2014 (Florida Artificial Intelligence Research Symposium), Program Committee member;

**KDIR 2014 (6<sup>th</sup> International Conference on Knowledge Discovery and Information Retrieval)**, Program Committee member;

**Expert Systems with Applications special issue on Case Based Reasoning in the Health Sciences,** Guest editor (2013) (with **Dr. Cindy Marling and Dr. Stefania Montani**);

IJCAI 2013 (International Conference on Artificial Intelligence), Reviewer;

ESWC 2013 (European Semantic Web Conference), Program Committee Member;

MEDINFO 2013 (International Conference on Medical Informatics), Reviewer;

ICCBR 2013 (International Conference on Case-based Reasoning), Program Committee member;

10<sup>th</sup> Case-based Reasoning in the Life Sciences workshop of ICCBR 2013 (International Conference on Case-based Reasoning), Co-chair;

ICDM 2013 (Industrial Conference on Data Mining), Program Committee member;

7<sup>th</sup> Data Mining in the Life Sciences workshop of ICDM 2013 (Industrial Conference on Data Mining), Co-chair;

AIME 2013 (Artificial Intelligence in Medicine), Program Committee member;

FLAIRS 2013 (Florida Artificial Intelligence Research Symposium), Program Committee member;

ESWC 2013 (Semantics and Big Data Conference), Program Committee member;

**ISHMIR 2013 (Exploiting Health Informatics for Connected, Collaborative, and Customized Patient Care Conference),** Program Committee member;

**KDIR 2013 (5<sup>th</sup> International Conference on Knowledge Discovery and Information Retrieval)**, Program Committee member; ICCBR 2012 (International Conference on Case-based Reasoning), Program Committee member;

6<sup>th</sup> Data Mining in the Life Sciences workshop of ICDM 2012 (Industrial Conference on Data Mining), Chair;

ICCBR 2011 (International Conference on Case-based Reasoning), Program Committee member;

AIME 2011 (Artificial Intelligence in Medicine), Program Committee member;

CAP 2011 (Conference en Apprentissage), Program Committee member;

5<sup>th</sup> Data Mining in the Life Sciences workshop of ICDM 2011 (Industrial Conference on Data Mining), Chair;

ICCBR 2010 (International Conference on Case-based Reasoning), co-Chair of the Conference;

ICDM 2010 (Industrial Conference on Data Mining), Program Committee member;

ICML 2010 (International Conference on Machine Learning), Reviewer;

CAP 2010 (Conference en Apprentissage), Program Committee member;

4<sup>th</sup> Data Mining in the Life Sciences workshop of ICDM 2010 (Industrial Conference on Data Mining), Chair;

ICCBR 2009 (International Conference on Case-based Reasoning), Local Chair of the Conference;

7<sup>th</sup> Case-based Reasoning in the Life Sciences workshop of ICCBR 2009 (International Conference on Case-based Reasoning), Program Committee member;

AIME 2009 (Artificial Intelligence in Medicine), Program Committee member;

ICDM 2009 (Industrial Conference on Data Mining), Program Committee member; in addition, I am responsible for selecting the best paper award at this conference;

ICDM 2008 (Industrial Conference on Data Mining), Program Committee member; in addition, I am responsible for selecting the best paper award at this conference;

6<sup>th</sup> Case-based Reasoning in the Life Sciences workshop of ECCBR 2008 (European Conference on Case-based Reasoning), Co-chair (with Dr. Stefania Montani);

**3<sup>rd</sup> Data Mining in the Life Sciences** workshop of **ICDM 2008 (Industrial Conference on Data Mining),** Chair;

IEEE Tools with AI 2008, Program Committee member;

**Computational Intelligence special issue on Case Based Reasoning in the Health Sciences,** Guest editor (2008) (with **Dr. Stefania Montani**);

ECCBR 2008 (European Conference on Case-based Reasoning), Reviewer; in addition, Dr. Stefania Montani and myself were asked to organize a special track on CBR in the Health Sciences at this conference;

2<sup>nd</sup> International Workshop on Conceptual Modelling for Life Sciences Applications (CMSLA 2008), Program Committee member;

ICCBR 2007 (International Conference on Case-based Reasoning), Reviewer;

ICDM 2007 (Industrial Conference on Data Mining), Program Committee member;

2<sup>nd</sup> Data Mining in the Life Sciences workshop of ICDM 2007 (Industrial Conference on Data Mining), Chair;

IEEE Tools with AI 2007, Program Committee member;

5<sup>th</sup> Case-Based Reasoning in the Health Sciences workshop of ICCBR 2007 (International Conference on Case-Based Reasoning), Co-chair (with Dr. Stefania Montani);

**Applied Intelligence special issue on Case Based Reasoning in the Health Sciences,** Guest editor (2007) (with **Dr. Stefania Montani**);

AIME 2007 (Artificial Intelligence in Medicine), Program Committee member;

1<sup>st</sup> International Workshop on Conceptual Modelling for Life Sciences Applications (CMSLA 2007), Program Committee member;

ICDM 2006 (Industrial Conference on Data Mining), Program Committee member;

ECCBR 2006 (European Conference on Case Based Reasoning), Program Committee member;

**Computational Intelligence special issue on Case Based Reasoning in the Health Sciences,** Guest editor (2006) (with **Dr. Cynthia Marling**);

3<sup>rd</sup> Case-Based Reasoning in the Health Sciences workshop of the ICCBR 2005 (International Conference on Case-Based Reasoning), Co-chair (with Dr. Cynthia Marling);

Case-Based Reasoning and Games workshop of the ICCBR 2005 (International Conference on Case-Based Reasoning), Program Committee member;

AIME 2005 (Artificial Intelligence in Medicine), Program Committee member;

ICDM 2005 (Industrial Conference on Data Mining), Program Committee member;

PreMI 2005 (First International Conference on Pattern Recognition and Machine Intelligence), special track on CBR and Knowledge Discovery, Program Committee member;

Artificial Intelligence in Medicine special issue on Case Based Reasoning in the Health Sciences, guest editor (2005);

ECCBR 2004 (European Conference on Case Based Reasoning), Program Committee member;

2<sup>nd</sup> Case-Based Reasoning in the Health Sciences workshop of the ECCBR 2004 (European Conference on Case-Based Reasoning), Co-chair (with Dr. Cynthia Marling) (invited workshop);

Case-Based Reasoning in the Health Sciences workshop of the ICCBR 2003 (International Conference on Case-Based Reasoning), Co-chair (with Dr. Cynthia Marling);

**Case-Based Reasoning Authoring Support Tools** workshop of the **ICCBR 2001 (International Conference on Case-Based Reasoning)**, Program Committee member ;

RaPC Annual Conference (Raisonnement a partir de Cas), Program Committee member ;

UKCBR Annual Conference (United Kingdom Case-Based Reasoning), Program Committee member;

**Revue d'Intelligence Artificielle special issue on Raisonnement à Partir de Cas,** guest editor (1999) (with **Dr. Alain Mille** and **Dr. Amedeo Napoli**);

**BIOSYSTEMA special issue on Biosystema N° 12, PhylSyst : Logiciel de Reconstruction Phylogénétique,** guest editor (1994) (with **Stephen Potter** and **Dr. Bernard Sigwalt**).

# GRADUATE STUDENTS

# **Chaired Masters Degrees**

Student Name	Level of Supervision ("thesis," "project" or "coursework only")	<b>Thesis/Paper Title</b> (if applicable)	Completed (Year)	Current Employer
Cassie Breen	Project	Feature Extraction on ECG Signals	2017	CNY Healthcare Collaborative
Kasthuri Balasubramanian	Project	Interdisciplinary Information Research Support system using Intelligent Agents	Summer 2009	Unknown
Eric Fickenscher	Project	Voxelization of X3D Models	Autumn 2008	Yumetech
Denis Berger	Thesis	Inverse Protein Folding Using a Genetic Algorithm	In progress	Microsoft
John Reed	Project	Machine Learning Applications for Analyzing Sailboat Race Handicap	Summer 2008	Telvent (Miner & Miner)
Ryan Potter	Thesis	Building Phylogenetic Trees using Sequence Alignment	Spring 2008	Ingenix (United Health Group)
Amalia Annest	Thesis	Iterative Bayesian Model Averaging: A Method for the Application of Survival Analysis to High- dimensional Microarray Data	Spring 2008	Sagem- Morpho
Jean Nakamura	Project	Predicting Time to Failure of Machines with Case- Based Reasoning	Summer 2007	Booz Allen Hamilton
Vel Rajagopal	Thesis	Knowledge Discovery in Biomedical Informatics with Multirelational Mining	Spring 2007	Employment Security Department, State of Washington
Gowri Allampalli- Nagaraj	Thesis	Semantic Indexing of Images using a Web Ontology Language	Spring 2007	Microsoft
Sean Tierney	Project	Data Acquisition and Knowledge Discovery in Security and Cyber Informatics	Winter 2006	Intel
Anthony Ciarocchi	Project	Adaptive Delivery of Online Audio Content using Case Based Reasoning	Spring 2005	Intel
Mike Spiz	Thesis	Using Latent Semantic Indexing as a Blocking Method for Data Deduplication	Winter 2006	Widemile Inc.

Sarad Akkineni	Thesis	Mining Medical Literature	Summer 2004	Microsoft
Troy Eng	Project	A Business Intelligence Solution for City of Tacoma Utility Customers Website	Summer 2003	Weyerhaeuser
Claude Lattaud	Thesis	Conceptual Graphs Implementation in VisualWorks	1993	University Paris V

# Other significant graduate student supervision

Student Name	Level of Supervision ("thesis," "project" or "coursework only")	Thesis/Paper Title (if applicable)	Completed (Year)
Harold Fincker	Graduate project	Prédiction de cas de schizophrénie à partir de SNPs sélectionnés	2017
Charles Englebert	Graduate project	Understanding the metabolic effects of a subgroup of genes on cancer severity, outcome, and characterization	2017
Logan Wells	Graduate project	Schizophrenia Genome Wide Association Study with Machine Learning	2016
Ekaterina Cole	Graduate project	Mobile Robotic Telepresence Systems for the Elderly	2016
Cassie Breen	Graduate project	Feature Extraction on ECG Signals	2016
Arthur Delsing	Graduate internship	<ul> <li>Web-based CBT for Substance</li> <li>Misusing and PTSD</li> <li>Symptomatic OEF-OIF</li> <li>Veterans Low Engagement</li> <li>Analysis and Webpage</li> <li>Redesign</li> </ul>	2015
Jim Dunagan	Graduate project	The Search for Unbiased Pharmaceutical Information on the Internet	2015
Sarah Coletta	Graduate project	A Comparative Study of Pet Robot Use in Alzheimer's / Dementia Care	2015
Karish Johnson	Graduate internship	EMR Instructional Design	2015
Arthur Delsing	Graduate project	Mindfulness Based Stress Reduction Mobile Application i-Corps Journey	2014
Jason Chase	Graduate project	Design of a Rabies Vaccination System	2014
John Chamberlain	Graduate internship	Analysis of Overtime in Medical Surgical Services at Oswego Hospital	2014
Jonathan Leewen	Graduate project	Analysis of County Health Data	2014

Arthur Delsing	Graduate internship	Mindfulness Based Stress	2014
	-	<b>Reduction Mobile Application</b>	
		i-Corps Journey	
Justin Hadcock	Graduate internship	Geriatric Mental Health	2014
	-	<b>Community Action Initiative</b>	
Alison McGrath	Graduate internship	Geriatric Mental Health	2013
		Community Action Initiative	
Anthony Kirkpatrick	Graduate project	Ontology-based Assistive	2013
		Interfaces for Editing Clinical	
		Practice Guidelines	
Jonathan Leewen	Graduate project	Introducing Evidence	2013
		Reference in Decision Trees	
Rupali Bodhankar	Independent Study	Computer Cooking Contest	2009
Logan Dillard	Independent Study	Genetic Algorithms for the	2007
		Curriculum	
Vel Rajagopal	Independent Study	Scientific Discovery in	2006
		Biomedicine	
Justin Baker	Independent Study	Genetic Programming	2006
Jacqueline Stough	Independent Study	Indexing and retrieval with	2006
		Latent Semantic Indexing	
Anthony Ciarocchi	Independent Study	Genetic Programming and	2006
		Case-based Reasoning	
Mythri Raj	Independent Study	Artificial Life	2005
Emer Conlon	Masters Thesis, Trinity	Temporal Representation and	1995
	College, Dublin, Ireland	Reasoning	
Stephen Potter	Masters Thesis,	The Classification of	1994
	University of Aberdeen,	Evolutionary Species using	
	UK	Artificial Intelligence Methods	
Lorraine Lebourgeois	Masters Project	Heuristic Classification of	1994
		Species	
Christophe Lombard	Masters Project	Heuristic Classification of	1994
		Species	
Hubert Bettan	Masters Project	Heuristic Classification of	1994
		Species	

# **RESEARCH ACTIVITIES**

# **Funded Research**

Funding Agency	Title	Total Amount (Subcontracts)	University Matching,	Your Role, Other Pi's co-	Dates (start-
			if any	Pi's	finish)
NSF	Educational	\$17,868		PI	2018-
	Allocation				2019
SUNY	Challenge	\$4,500		PI	2017-
Oswego	SCAC grant				2017
SUNY	Improvement	\$575,000		PI for Oswego	2016-
	and	(partial figure)			2018

	Performance			
	Fund			
SUNY	Provost	two courses	PI	2016-
Oswego	Scholar	release		2017
SUNY	Innovative	\$55,000	PI	2016-
	Instructional			2017
	Technology			
	Grant			
NSF	Fellowship	\$7,500	PI	2016-
	grant			2017
Hill	Using 'omics	\$15,000	co-PI	2016-
Collaborat	Technologies			2017
ion	to Identify			
	Arsenic			
	Biomarkers			
NSF	Travel grant	\$300	PI	2016-
				2017
SUNY	SUNY 2020	\$1,420,000	co-PI	2015-
	Labs to Jobs			2018
Robyn	Justocat	\$4,200	PI	2015-
Robotics				2015
SUNY	High-Needs	\$60,000	Investigator	2015-
	grant		C C	2016
SUNY	High-Needs	\$85,800	Investigator	2014-
	grant			2015
SUNY	Challenge	\$5,000	PI	2013-
Oswego	grant			2013
DARPA	ICCBR	\$10,000	PI	2009-
	conference			2010
NRL	ICCBR	\$3,000	PI	2009-
	conference			2009
Empolis	ICCBR	\$1,000	PI	2009-
1	conference			2009
Verdande	ICCBR	\$2,000	PI	2009-
	conference			2009
UWT	Scholarship	One course	PI	Winter
	1	release		2005
NIMA	Virtual	\$516K	co-PI,	2002-
	Experts		PI: Kovalerchuk	2005
	#NMA401-02-			
	BAA-2000			
NIH	Computerized	\$1,500k	Investigator,	1996-
(AHCPR)	Decision		PI: Sullivan	2000
()	Support			
	#R01HS09407			
MENESR	Fellowship	Full-time salary	PI	1990-
	F			1993

Unsponsored research.

- responsible for the *MEMOIRE* project at Institute of Technology, Computing and Software Systems, University of Washington, Tacoma (future funding, publications);
- responsible for the *PSYCHIATRY* project at LIAP-5, in collaboration with the Clinique des Maladies Mentales et de l'Encéphale of Sainte-Anne Hospital, Cochin-Port-Royal Faculty of Medicine, University René Descartes-Paris V (service of Professor Bertrand Samuel-Lajeunesse) (publications);
- responsible for the *PHYLSYST* project at LIAP-5, in collaboration with the Muséum National d'Histoire Naturelle (Professor Daniel Goujet), implementing artificial intelligence methods for cladistics (construction of phylogenetic classifications) (publications).

О <b>Т</b> . Ц	1 LF	CHING		
Courses Taught			-	
Topic	Title	Level	Institution	Year
Artificial Intelligence	Case-Based Reasoning Logic and Artificial Intelligence	Post-graduate Post-graduate	Université Paris-V Université Paris-V	1996 1994, 1995
	Data Mining	Graduate	Univ. of Washington	2003, 2005
	Data Analytics	Graduate/Unde rgraduate	SUNY Oswego	2013, 2014. 2015, 2016, 2017
	Artificial Intelligence	Undergraduate	Univ. of Washington	2003, 2004 (2), 2006, 2007, 2009, 2010
Biomedical Informatics	Introduction to Biomedical Information Systems	Graduate/Unde rgraduate	SUNY Oswego	2012, 2013, 2014, 2017
	eHealth	Graduate	SUNY Oswego	2014, 2015, 2016
	Systems Design	Graduate	SUNY Oswego	2016
	Biomedical Informatics Methods	Graduate	SUNY Oswego	2017
Bioinformatics	Bioinformatics	Graduate	Univ. of Washington	2004, 2007, 2010
Computer Graphics	Computer Graphics	Undergraduate	Univ. of Washington	2006 (2), 2009, 2010
	Computational Worlds	Undergraduate	Univ. of Washington	2006,2007,2008,2009
C Programming Language	С	Undergraduate	Université Paris-V	1995
Data structures	Data structures, Advanced data structures	Undergraduate	Central Washington University	2001 (3)
Databases	Databases	Undergraduate	Université Paris XIII	1994
	Database Systems Design Database Systems Design	Undergraduate Graduate	Univ. of Washington	2003 (2), 2002,2004, 2005 2003, 2004
	Database Applications	Undergraduate /Graduate	SUNY Oswego	2012, 2013, 2014 (2), 2015
Discrete Structures	Discrete Structures	Undergraduate	Univ. of Washington	2002,2003, 2007 (2), 2008(2),2009(2),2010(2)
Introduction to Computer Science	Computer Science	Undergraduate	Université Paris-V	1992(2),1993(2),1994,199 5
	Computer Science	Undergraduate	Université Paris-III	1992
IntroductiontoProgrammingandProblem-Solving	Algorithmic	Undergraduate	Université Paris-V	1994, 1995
	Logic of Computing	Undergraduate	Central Washington University	2000, 2001(2)
Java Object-Oriented Programming	Object-Oriented Programming / Java	Undergraduate	Central Washington University	2000, 2001
	Introduction to Programming: Java I & II	Undergraduate	Evergreen State College	2000 (2)
Lisp Programming	Programming Language / Lisp	Undergraduate	Central Washington University	2001
Mathematics	Mathematical Fundations of Computer Sciene	Undergraduate	Univ. of Washington	2002, 2003
Masters Seminar in CSS	Masters Seminar in CSS	Graduate	Univ. of Washington	2005 (2), 2007
Object-Oriented Modeling	Object-Oriented Concepts with UML and Java	Undergraduate	Evergreen State College	2000
Pascal Programming Language	Pascal	Graduate	Université Paris-V	1994

# TEACHING

Software Engineering	Software Engineering	Undergraduate	Université de Limoges	1996
	Software Engineering	Post-graduate	Université Paris-V	1995, 1996
	Advanced Computer Science	Post-graduate	Université Paris-V	1996
HumanComputerInteraction (HCI)	Introduction to HCI	Graduate/Unde rgraduate	SUNY Oswego	2013

# Supervision of independent study (design projects and research).

Student Name	Level of Supervision	Title (if applicable)	Completed (Year)
Dominick Manno	Undergraduate Internship	Oswego Alumni Web Site Design	Spring 2016 Summer 2016
Greg Parks	Undergraduate Internship	Oswego County Personnel Department Website Redesign Project	Summer 2014
Jonh Leno	Undergraduate Internship	Human Concerns Center System	Summer 2014
Igor Waszcynski	Undergraduate Research	Analysis of County Health Data	Summer 2014
Leonardo Dias Miranda	Undergraduate Research	Analysis of County Health Data	Summer 2014
John Emerson	Undergraduate Research	Computer Cooking Contest	Summer 2009
Olasope Olinatori	Undergraduate Research	Computer Cooking Contest	Summer 2009
Wilfredo Ortiz	Undergraduate Research	Computer Cooking Contest User Interface	Autumn 2009
Maori Kano	Undergraduate Research	Cooking by Adapting Semantically Similar Recipes through Case based Reasoning	Winter & Spring 2010
Christopher Nelson	Undergraduate Research	Cooking Contest Parser Improvement	Winter & Spring 2010
Chad Mowery	Undergraduate Research	Case based Reasoning for Micro and Macro Level Decisions in the Real Time Strategy Game Starcraft	Winter 2010
Nathan Spencer	Undergraduate Research	Reinforcement Learning for Micro and Macro Level Decisions in the Real Time Strategy Game Starcraft	Winter 2010
Aaron Craigen	Undergraduate Research	Computational Worlds	Spring 2010
Jack West	Undergraduate Research	Computational Worlds	Spring 2010
Craig Truzzi	Undergraduate Research	Linking Genes and Diseases through Ontology	2009
Van Huynh	Undergraduate Internship	Database Design	2008

Seth Hill	Undergraduate Internship	T-trees: the Dynamic Solution to 2008 Multidimensional Data	
Yong Shin	Undergraduate Reading	Machine Learning to Track Case-	2008
e		based Reasoning Literature	
		Evolution	
Timothy Minalia	Undergraduate Reading	DirectX Game Development	2008
Dan Cox	Undergraduate Reading	DirectX Game Development 2008	
Andre Von Houck	Undergraduate Reading	AI and the Metacircular 2008	
		Evolution of Game Play	
Andre Von Houck	Undergraduate Research	Real-Time Planet Rendering 2007	
Bruce Nguyen	Undergraduate Internship	Contact Manager Application 2004	
Jay Lynn Cassio	Undergraduate Internship	AT&T Wireless Business /	2004
		Functional Analyst	
Ben Giles	Undergraduate Reading	Object Oriented Databases	2004
Rakkha Sananayake	Undergraduate Reading	SQL Server 2000 Concepts	2004
Dana Parries	Undergraduate Reading	Natural Language Understanding	2004
Angel Diaz	Undergraduate Reading	Programming Spiders, Bots,	2004
-		Aggregators, and Agents in Java	
Adem Ismail	Undergraduate Reading	SQL in DB2	2004
Jason Apanovitch	Undergraduate Internship	Financial Java Server Pages and 2004 Database Applications	
Adem Ismail	Undergraduate Reading	SQL in DB2	2004
Phuc Nguyen	Undergraduate Internship	Database System Design for2004YWCA	
Phuc Nguyen	Undergraduate Reading	Online Bookstore	2004
Monica Soni	Undergraduate Research	Case Based Reasoning in	2003
	C C	Medicine and Biology	
Parul Diwan	Undergraduate Research	Case Based Reasoning in 2003 Medicine and Biology	
Joe Orlando	Undergraduate Internship	Covshire Players' Guild (CPG)2003Record-Keeping System (RKS)	
Phuc Nguyen	Undergraduate Internship	Database System Design for YWCA2003	
Siam Boonsripaisal	Undergraduate Reading	Bioinformatics computing	2003
Felicien Kadiata-Lota	Undergraduate Reading	Bioengineering technology	2003
Hunter Mayer	Undergraduate Internship	Dynamic Presentation of Dynamic Content2003	
Ian Pinter	Undergraduate Internship	Dynamic Content2003Dynamic Content2003	
Monika Soni	Undergraduate Reading	Discovering Genomics, Proteomics, and Bioinformatics	2003
Parul Diwan	Undergraduate Reading	Discovering Genomics, Proteomics, and Bioinformatics	2003
Monika Soni	Undergraduate Research	Biomedical Informatics Website	2003
Parul Diwan	Undergraduate Research	Biomedical Informatics Website	2003
Monika Soni	Undergraduate Reading	Programming Spiders, Bots, and Aggregators in Java	2003
Nataliya Allard	Undergraduate Internship	Oracle Education Project	2003
Felicien Kadiata Lota	Undergraduate Reading	Probability Theory and Analysis of Medical Decision	2003
Tung Le	Undergraduate Reading	Semantic Web in Medical Domains	2003

Andrew Becherer	Undergraduate Reading	When Health is at Stake: an Analysis of Indexing in Health2003	
James Gordon	Undergraduate Reading	Information SystemsEvaluating Computer Systems in Medical Informatics	
John Ha	Undergraduate Reading	Introduction to Bioinformatics 2003	
Megan Wendt	Undergraduate Reading	Creation of Iliad Medical Expert 2003 System	
Ismail Adem	Undergraduate Reading	The Use of Technology in Health2003Care Informatics2003	
John Carlile	Undergraduate Reading	Essential Technologies for 2003 Clinical Trials	
John Ha	Undergraduate Reading	Introduction to Bioinformatics	2003
Thu-Thao Nguyen	Undergraduate Reading	Strategies and Technologies for 2003 Healthcare Informatics	
Michelle Hector	Undergraduate Reading	Medical Informatics	2003
Bola Makari	Undergraduate Reading	Medical Informatics	2003
Viet Do	Undergraduate Reading	Finding out the Identity of Splice2003Junctions in a NucleotideSequence	
Phuong Vu	Undergraduate Reading	Clinical Decision Support 2003 Systems	
Daisy Huss	Undergraduate Reading	Health Decision Support Systems	2003
Kelli Mohr	Undergraduate Reading	Methodology and Assessment of 2003 Medical IT-based Systems	
Hoai Minh Tran	Undergraduate Reading	Data Mining 2003	
Thuy Le	Undergraduate Reading	Internet Development Using2003XHTML, CSS, and JavaScript	
Tung Le	Undergraduate Reading	XML Web services 2003	
John Ha	Undergraduate Reading	XML for Web-development	2003
Thang Nguyen	Undergraduate Reading	Case-Based Reasoning in Biology 2003 and Medicine Bibliography	
Bola Makari	Undergraduate Internship	Web-development for Real Estate2003Web Site and UWT StudentsWeb Site	
Thang Nguyen	Undergraduate Reading	Learning ASP.NET for an online 2002 music store	
Thanh Nhan	Undergraduate Reading	Learning ASP.NET for an online music store	2002
Anh Tran	Undergraduate Reading	Entreprise Java Beans	2002
Quykhue Pham	Undergraduate Reading	Graph Drawing Methods and TouchGraph tool example2002	
Josh Coady	Undergraduate Reading	Java Development	1998
Mike Bartlett	Software Development	XML for Web-development 2002	
Alex Golubev	Software Development	Web design and implementation 1997-98	
Hugo Malinson	Software Development	Machine Learning 1997	

**Departmental service** Biomedical and Health Informatics (BHI) Search Committee, chair (2018-2019). Biomedical and Health Informatics (BHI) Search Committee, chair (2017-2018). Biomedical and Health Informatics (BHI) Search Committee, chair (2016-2017). Biomedical and Health Informatics (BHI) Search Committee, chair (2014-2015). Biomedical and Health Informatics (BHI), director. (2014-). Health Information Technology (HIT) and Integrated Health Systems (HIS) Graduate Certificates, director. (2012-). Curriculum Committee, Department of Computer Science, SUNY Oswego (2012-2014). Personnel Committee, Department of Computer Science, SUNY Oswego (2013-). MBA-HSA Search Committee, School of Business, SUNY Oswego (2012-2013). HCI Faculty Search Committee, Department of Computer Science, SUNY Oswego (2012-2013). Director of the Laboratory Informatics & Artificial Intelligence, Institute of Technology, UWT, (2004-2010).This laboratory specializes in computational intelligence research and to its applications to biosystems, and is also known as the Computational Biosystems and Intelligence Laboratory. It has been funded by local industries from Washington state and its equipment amounts to more than \$60K. Science Day 2004 and Science Day 2005 organizing committee member; "Model for Change: Strengthening Students Through Pipeline Development & Faculty Involvement in a Pale & Male Environment", Isabelle Bichindaritz, Maile Hadley, Phuc Nguyen, South Puget Sound Higher Education Diversity Partnership (2004); Institute of Technology UWT Undergraduate Committee, member (2004-2005), chair (2004); Institute of Technology UWT Process Committee, member (2002-2004); Institute of Technology UWT Graduate Committee, member (2002-2005, 2007-2010); Institute of Technology UWT Facilities Committee, member (2002-2010); Institute of Technology UWT Library Committee, member (2002-2010); Institute of Technology UWT Colloquium Committee, chair (2008-2010); Institute of Technology UWT Mission and Vision Ad-Hoc Committee, member (2008-2010); Institute of Technology UWT Initial Assessment and Placement Committee, member (2002-2003). Computer Science majors advising (2006-2010); Institute of Technology UWT Teaching Peer Review Committee, member (reviewed Lou-Ann Lyon-Banks (2005), Don McLane (2006, 2007, 2008), Yan Bai (2009), Jie Sheng (2009));Institute of Technology UWT ITS Search Committee, member (2007-2008); Information Session on CSS graduate program, autumn 2006, autumn 2009. **College service** CLAS Diversity Committee, member (2019-) University of Washington, Tacoma, Arts and Lectures Committee, member (2003-2005); University of Washington, Tacoma, Planning Committee, member (2007-2008); University of Washington, Tacoma, Scholarship Committee, member (2004-2010); University of Washington, Tacoma, Disciplinary Committee, member (2009-2010); University of Washington, Tacoma, Library Committee, member (2003-2008), chair (2004, 2007); **University service** Graduate Dean Search Committee, SUNY Oswego, member (2016-2017)

Graduate Council, SUNY Oswego, member (2013-) Human subjects Committee, SUNY Oswego, member (2015-)

Scholarly and Creative Activities Committee, SUNY Oswego, chair (2017-), member (2015-)

Scholarly and Creative Activities Committee Advisory Committee, SUNY Oswego, member (2016-)

Graduate Scholarship Committee, SUNY Oswego, (2016, 2017)

HIT Mash Camp, coordinator, SUNY Oswego (summer 2014).

University of Washington, Faculty Senate, member (2006-2010);

University of Washington, Faculty Council on University Facilities and Services, member (2007-2010);

University of Washington, Faculty Council on University Libraries, member (2007-2010), chair (2009-2010);

Distinguished Librarian Award Selection Committee, member (2009-2010);

**Community service** 

**TECC (Technology and Emerging Care Concerns), Rural Health Network of Oswego County,** Committee member (2012-);

**Professional society and other service** 

12<sup>th</sup> Case-based Reasoning in the Life Sciences workshop of ICCBR 2019 (International Conference on Case-based Reasoning), Co-chair;

**3rd Synergies between Case-based Reasoning and Machine Learning** workshop of **ICCBR 2018** (International Conference on Case-based Reasoning), Co-chair;

IJCAI workshop on Artificial Intelligence for Health of IJCAI 2018 (International Joint Conference on Artificial Intelligence), Co-chair;

2nd Synergies between Case-based Reasoning and Knowledge Discovery workshop of ICCBR 2016 (International Conference on Case-based Reasoning), Co-chair;

11<sup>th</sup> Case-based Reasoning in the Life Sciences workshop of ICCBR 2016 (International Conference on Case-based Reasoning), Co-chair;

Biomed Research International Journal special issue on "Distributed Artificial Intelligence Models for Knowledge Discovery in Bioinformatics, co-Guest Editor with Professors Juan Manuel Corchado and Juan Francisco de Paz (2015, 2016).

1st Synergies between Case-based Reasoning and Data Mining workshop of ICCBR 2014 (International Conference on Case-based Reasoning), Co-chair;

Editor for the Journal on Data Mining and Digital Humanities (<u>http://jdmdh.episciences.org/page/editorial-team</u>);

**Expert Systems with Applications special issue on Case Based Reasoning in the Health Sciences,** Guest editor (2013) (with **Dr. Cindy Marling and Dr. Stefania Montani**);

10<sup>th</sup> Case-based Reasoning in the Life Sciences workshop of ICCBR 2013 (International Conference on Case-based Reasoning), Co-chair;

7<sup>th</sup> Data Mining in the Life Sciences workshop of ICDM 2013 (Industrial Conference on Data Mining), Co-chair;

6<sup>th</sup> Data Mining in the Life Sciences workshop of ICDM 2012 (Industrial Conference on Data Mining), Chair;

ICCBR 2010 (International Conference on Case-based Reasoning), Co-chair of the Conference;

ICCBR 2009 (International Conference on Case-based Reasoning), Local Chair of the Conference;

5<sup>th</sup> Data Mining in the Life Sciences workshop of ICDM 2010 (Industrial Conference on Data Mining), Chair;

4<sup>th</sup> Data Mining in the Life Sciences workshop of ICDM 2009 (Industrial Conference on Data Mining), Chair;

**3<sup>rd</sup> Data Mining in the Life Sciences** workshop of **ICDM 2008 (Industrial Conference on Data Mining),** Chair;

**Computational Intelligence special issue on Case Based Reasoning in the Health Sciences,** Guest editor (2008) (with **Dr. Stefania Montani**);

**ECCBR 2008 (European Conference on Case-based Reasoning),** Reviewer; in addition, Dr. Stefania Montani and myself were asked to organize a special track on CBR in the Health Sciences at this conference;

2<sup>nd</sup> Data Mining in the Life Sciences workshop of ICDM 2007 (Industrial Conference on Data Mining), Chair;

5<sup>th</sup> Case-Based Reasoning in the Health Sciences workshop of ICCBR 2007 (International Conference on Case-Based Reasoning), Co-chair (avec Dr. Stefania Montani);

**Applied Intelligence special issue on Case Based Reasoning in the Health Sciences,** Guest editor (2007) (with Dr. Stefania Montani);

**Computational Intelligence special issue on Case Based Reasoning in the Health Sciences,** Guest editor (2006) (with Dr. Cynthia Marling);

3<sup>rd</sup> Case-Based Reasoning in the Health Sciences workshop of the ICCBR 2005 (International Conference on Case-Based Reasoning), Co-chair (with Dr. Cynthia Marling);

Artificial Intelligence in Medicine special issue on Case Based Reasoning in the Health Sciences, guest editor (2005);

2<sup>nd</sup> Case-Based Reasoning in the Health Sciences workshop of the ECCBR 2004 (European Conference on Case-Based Reasoning), Co-chair (with Dr. Cynthia Marling) (invited workshop);

**Case-Based Reasoning in the Health Sciences** workshop of the **ICCBR 2003 (International Conference on Case-Based Reasoning)**, Co-chair (with Dr. Cynthia Marling);

**Revue d'Intelligence Artificielle special issue on Raisonnement à Partir de Cas,** guest editor (1999) (with Dr. Alain Mille and Dr. Amedeo Napoli);

4th French Workshop on Case-based Reasoning, Chair, April 10-11 1995 at University René Descartes-Paris V;

**BIOSYSTEMA special issue on Biosystema N° 12, PhylSyst : Logiciel de Reconstruction Phylogénétique,** guest editor (1994) (with Stephen Potter and Dr. Bernard Sigwalt).

#### **International service**

- . **Opponent, Ph.D. Jury Duty,** invited by Yves Pares to be his opponent for his defense on the subject: *Méthodes Structurelles et Sémantiques pour la Mise en Correspondance de Cas Textuels de Dysmorphies Foetales,* University of Paris VI, France (1st December 2016).
- . Grant reviewer, Cyprus Research Council, "Simulating the Market of Nicosia in the 19<sup>th</sup> Century and its Inhabitants" and "Development of New Venn Prediction Methods for Osteoporosis Risk Assessment" 2010.
- . Grant reviewer, Netherlands Genomic Initiative, NGI (2008).
- . **Opponent, Ph.D. Jury Duty,** invited by Stefan Pantazi to be his opponent for his defense on the subject: *A Deterministic Dynamic Associative Memory (DDAM) Model for Concept Space Representation,* University of Victoria, Canada (12 Juin 2006).
- . Grant reviewer, European Commission, Research Directorate General, NEST (New and Emerging Science and Technology) Pathfinder initiative: *Measuring the Impossible* (2005, 2006).
- . **Opponent, Ph.D. Jury Duty,** invited by Markus Nilsson to be his opponent for his defense on the subject: *Retrieve and Classify*, University of Mälardalen, Vasterås, Sweden (August 16, 2005).
- . Session co-chair at ECCBR-08 conference, *Health Sciences applications* special track (with Dr. Montani, Trier, Germany).
- . Session chair at conferences ICDM-04, ICDM-05, ICDM-06, ICDM-07, ICDM-08 (Leipzig, Germany).
- Session chair at the computer science conferences ICCI-95 and ICCI-96 (Peterborough and Waterloo, Ontario), for the sessions: *Intelligent Databases, Object-Oriented Databases* and *Expert Systems*.

### National service

- . Grant reviewer, National Science Foundation, "Smart and Connected Health" initiative (2016).
- . Grant reviewer, Alzheimer's Association (2003, 2008);
- . Jury duty, Ph.D. thesis jury member, Mohammed Amara, Ecole Nationale des Ponts-et-Chaussées, Paris (December 1994) ;
- . In charge of the organization of a workshop about Case-based Reasoning, Machine Learning and Data Mining: Successful Medical Applications during the American Medical Informatics Fall Symposium (November 1999);

### All other service

### SUNY OSWEGO

- Science Art posters, Organized by Carolina Ilie (October 5, 2013);
- Lockheed Martin Tour, Van driver (November 8, 2013);

### <u>CENTRAL</u> <u>WASHINGTON</u> <u>UNIVERSITY</u>

- . Computer Science pre-majors advising ;
- . Senior software engineering projects advising ;
- . Students in NSF scholarship advising ;

- . Computer Science Department Curriculum Committee, Merit Review Committee and Reappointment Committee ;
- . Poster judge, SOURCE (Symposium On Undergraduate Research and Creative Expression).

### FRED HUTCHINSON CANCER RESEARCH CENTER RESPONSIBILITIES

- . Chair, LTFU Web-Committee;
- . In charge of the software and hardware choices and installation for the Computerized Decision Support System (CDSS);
- . In charge of the development and update of the LTFU Web-site at <a href="http://www.fhcrc.org/science/clinical/ltfu">http://www.fhcrc.org/science/clinical/ltfu</a>.

### **OTHER**

- . In the context of my research at LIAP-5, choice, purchase, installation and upgrade of software packages and hardware materials ;
- . In the context of the application of my research at Sainte-Anne Hospital, responsibility for the computer center, choice and purchase of equipment for the computerized tests for the patients, input and communication of data to other computer systems, representation of the service for international trainees and visitors. I was also in charge with several statistical analyses using the SYSTAT system.

# **PROFESSIONAL EXPERIENCE**

#### Skills

Туре	Name	Length
Methodologies	UML, Rational Rose	10 years
	OMT, XP	3 years
	MERISE	3 years
Languages	Java, IBM Visualage for Java, RMI, JDBC, CORBA	22 years
	Smalltalk	6 years
	Python	2 years
	HTML, Javascript, Wordpress, XML	16 years
	RDF, OWL	5 years
	C++, Visual C++, IBM Visualage C++. Php	3 years
	PL/I, RPC	2 years
	COBOL, LISP, PROLOG	3 years
	BASIC-PLUS-2, ML	2 years
DBMS	DB2, ODBC, DATACOM/IDEAL, ORACLE, MySQL	5 years
	IMS DB/DC	3 years
Tools	SAS, SAS Enterprise Miner, SAS Forecast Server	7 years
	R language, IBM Watson Analytics, Semantria	6 years
	SPSS, SPSS Modeler	7 years
Systems	Windows NT server	3 years
2	Windows 98, Windows 95, Windows 7	21 years
	IBM OS/MVS, MVS	4 years
	UNIX, Linux	4 years
	VAX/VMS	6 months
	DEC PDP11 RSTS	2 years

### **Professional education**

. 1985 :

*training course for computer systems analyst* (5 months, 800 hours) (with Very High Honors), at Ecole Supérieure d'Informatique Professionnelle, in Z 80 Assembler, IBM Assembler, ANS Cobol, IBM tools : VSAM, DL/I, CICS, Organic and Functional Analysis.

1978 :

*training course for computer programmers* (6 months), at Conservatoire National des Arts et Métiers (Director **Professor Michel Politis**) ; mathematics applied to computer science (100 h), management (100 h), English (100 h), structured programming (300 h), general informatics (100 h) and applied to management (80 h), project in PL/I (200 h).

### **Professional experience**

2000:

### consultant for 360 Powered Corporation :

- development of a Java-based query server for this company developing an innovative Internet search engine under the patented concept of push-indexing technology.
- 1988 to 1990 :

engineer at CAP SESA FINANCE, in charge of one to two persons :

- at **Comptoir Des Entrepreneurs**, design and implementation in the project Property Developer Unified File ; writing of a report on software quality ; design and setting of a control database ensuring the safety and the verifiability (transparency) of a computer system, for 9 months, on IBM 4381 MVS, TSO, ROSCOE, CICS, DATACOM/IDEAL ;
- at Crédit Commercial de France, Back Office Market Room, installation and supervision on DEC PDP11 RSTS, VAX/VMS in BASIC-PLUS-2 of the British software packages WILCO, CUMULUS and TRAX, for 3 months ;
- at **CITIBANK** for 3 months, conception of a banking confirmation on VAX/VMS in COBOL, FMS, CDD, DTR, in order to rewrite it in ORACLE and C.

1985 to 1988 :

systems analyst at DATAID, in charge of one to two persons :

- at **RANK XEROX**, design and implementation in the project Estimated Billing, for 1 year, in the environment : IBM 4331 and 3090, OS/MVS, TSO, IMS DB/DC, COBOL, SPITAB, EASYTRIEVE ;
- at RENAULT, design and implementation in the project DOCumentation of the Research Department (DOCBE), with the setting of an interface data-base between DOCBE and other projects, for 2 years, in the environment : IBM 3081 and 3090, MVS, TSO, IMS DB/DC, PLI, C, RPL, design methodology MECIRE (derived from MERISE).

1981 :

*systems analyst* at GAN : design and realization of batch chains about life-insurance, in the environment : IBM 4331, OS/MVS, VM/CMS, COBOL.

#### 1978 to 1980 :

systems analyst and programmer at Conservatoire National des Arts et Métiers (Accountancy Service) :

- migration of the pay chain from IBM 360/DOS to DEC PDP11 70/RSTS ;
- design and implementation of the Teleprocessing on DEC PDP11 70/RSTS of the Accountancy Service computerization in COBOL and BASIC-PLUS-2.

### MISCELLANEOUS

foreign languages :

French : native speaker ; English : fluent (in 1996: TOEFL = 647/677, TWE = 5.5/6, TSE = 55/60) ; German : read and written ; Latin: read and written ;

. music : piano and musical studies in Sceaux/Bourg-la-Reine Conservatoire.

# INDEX OF ACRONYMS

AFIA	Association Française pour l'Intelligence Artificielle (French association for artificial
	intelligence);
AHCPR	Agency on Health Care Policy and Research (National Institute of Health)
CNU	Conseil National des Universités (National Universities Council, organism of the French
	Ministry of Higher Education and Research);
CNRS	Centre National de la Recherche Scientifique (French national scientific research organism)
	;

DAIT	Division on Allergies, Immunology, and Transplantation (National Institute on Alergies
DEA	and Infectious Diseases, National Institute of Health) Diplôme d'Etudes Approfondies (equivalent of first year of Ph.D);
DESS	Diplôme d'Etudes Supérieures Spécialisées (postgraduate degree granted 5/6 years after
DESS	Baccalauréat);
DIAM	Département Intelligence Artificielle et Médecine (artificial intelligence and medicine
DIMNI	department);
DUT	Diplôme Universitaire de Technologie (postgraduate degree granted 2 years after
201	Baccalauréat);
ENPC	Ecole Nationale des Ponts et Chaussées (one of the main engineering schools in France);
GDR	Groupe de Recherche (research group depending upon the PRC);
HTA	HyperTension Artérielle (high-blood pressure);
IARFA	Intelligence Artificielle, Reconnaissance des Formes et Applications (artificial intelligence,
	pattern recognition and applications);
INRIA	Institut National pour la Recherche en Informatique et Automatique (one of the main
	reserach institutes in computer science in France);
INSERM	Institut National pour la Santé Et la Recherche Médicales (the official French national
	institute for medical research);
IUT	Institut Universitaire de Technologie (Engineering Science University);
LIAP-5	Laboratoire d'Intelligence Artificielle de Paris-V (Paris-V University artificial intelligence
MENECD	laboratory);
MENESR	Ministère de l'Education Nationale, l'Enseignement Supérieur et de la Recherche
MIAIF	Magistère d'Informatique Appliquée de l'Ile de France (postgraduate degree granted 6/7 years after Baccalauréat) ;
MSI	Laboratoire de Méthodes et Systèmes Informatiques (the Computer Science Laboratory of
WISI	the University of Limoges);
NIAID	National Institute on Alergies and Infectious Diseases (National Institute of Health)
NEST	New and Emerging Science and Technology, program of the European Commission
11201	Research Directorate ;
NIH	National Institute on Health
NIMA	National Imaging and Mapping Agency
NSF	National Science Foundation
PHYLSYST	SYSTématique PHYLogénétique (phylogenetic systematics) ;
PRC	Pôle de Recherche (research domain depending upon the CNRS).
RFIA	Reconnaissance des Formes et Intelligence Artificielle annual congress (French national
	conference on pattern recognition and artificial intelligence).

# References

# **Professor Cindy Marling**

School of Electrical Engineering and Computer Science Russ College of Engineering and Technology Ohio University Athens, Ohio 45701,USA Phone: +1 740 593-1246FAX: +1 740 593-0007 Interfolio email : <u>send.Marling.B5E919F614@interfolio.com</u> Email: marling@ohio.edu

### **Professor Stefania Montani**

Dipartimento di Informatica Viale Michel 11 15100 Alessandria, Italy Phone: (+39) 0131 360158 Fax: (+39) 0131 360198 Interfolio email : <u>send.Montani.8D63EA31FC@interfolio.com</u> E-mail: stefania.montani@unipmn.it

# **Professor Michel Dojat**

Grenoble Institut des Neurosciences Université Joseph Fourier - Site Santé BP 170 - F38042 Grenoble Cedex 09 France Phone : +33 (0)4 56 52 06 01Fax: 33 (0)4 56 52 05 98Interfolio email : send.Dojat.89CEF6A9AB@interfolio.com Email: Michel.Dojat@ujf-grenoble.fr

# **Professor June Lowenberg**

University of Washington Tacoma 98402 Tacoma WA Phone: (206) 522 7961Interfolio email : <u>send.Lowenberg.95F9F750ED@interfolio.com</u> E-mail: junelow@u.washington.edu