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RESEARCH INTERESTS

- Machine Learning and Artificial Intelligence
- Medical Informatics and Bioinformatics
- Mathematical Programming and Optimization
- Pattern Recognition and Computer Vision

PROFESSIONAL EXPERIENCE

UNIVERSITY OF CONNECTICUT, STORRS, CT

Frederick H Leonhardts Endowed Professor

8/2020 –

Professor

8/2019 –

Associate Professor with Tenure

8/2016 – 7/2019

Associate Professor without Tenure

8/2010 – 7/2016

Associate Head of Computer Science and Engineering

2/2019 –

Primary appointment: Department of Computer Science and Engineering (CSE), School of Engineering

Affiliated with: Department of Statistics, College of Liberal Arts and Sciences,

since 2015

Department of Biomedical Engineering, School of Engineering,

since 2012

Department of Community Medicine and Health Care, School of Medicine,

since 2010

PARTNERS HEALTHCARE SYSTEM (MASSACHUSETTS GENERAL HOSPITAL), Boston, MA

Senior Scientist II (joint appointment by Dept of Defense Bioanalysis Institute)

9/2009 – 7/2010

SIEMENS MEDICAL SOLUTIONS, INC. USA, Malvern, PA

Principal Scientist, Computer Aided Diagnosis and Knowledge Solutions (CKS)

9/2003 – 9/2009

NEC RESEARCH INSTITUTE INC., Princeton, NJ

Research Associate (intern) with Dr. Vladimir N. Vapnik, the Machine Learning Group

5/2002 – 3/2003

RENSSELAER POLYTECHNIC INSTITUTE, Troy, NY

Research Assistant with Dr. Kristin Bennett (and external advisor Vladimir N. Vapnik on learning theory), Department of Mathematical Sciences

5/1999 – 8/2003

Ph. D. Dissertation: Support vector regression with application in automated drug discovery.

HONORS

- **Fellow of Connecticut Academy of Science and Engineering** 2020
CASE was chartered by the Connecticut General Assembly in 1976. It provides expert guidance to the state of CT and promotes the application of science and technology towards issues of economic well-being and human welfare.
- **Distinguished Woman in STEM Award by Bay Path University** 2020

One award per year selected from professional women in the Knowledge Corridor Area, with cutting edge research into critical areas that advance our ability to keep abreast of scientific or technological breakthroughs necessary to remain competitive in the global arena

- **Women of Innovation Award by Connecticut Technology Council** 2019
Winner in the category of Research Innovation and Leadership as one of the eleven different categories. This is the unique ceremony at Connecticut to celebrate and promote woman leaders
- **NIH Mid-Career Independent Scientist Award**, NIDA/NIAAA, NIH 2017
Highly selective, and was appointed to the mid-career level via NIH merit review process
- **Finalist for Women Innovators and Leaders Award by Connecticut Technology Council** 2017
One of the five scientists in the category of Research Innovation and Leadership for an annual award for women at Connecticut
- **Provost Recognition of Teaching Excellence** by University of Connecticut 2015
An annual award given to UConn faculty members who are selected based on outstanding teaching inside and outside of the classroom
- **Best Paper Award** by IEEE International Conference on Bioinformatics and Biomedicine 2014
Selected from more than 200 workshop papers
- **Data Mining Practice Prize** awarded by Association for Computing Machinery (ACM) 2009
Awarded to Dr. Bi's group at Siemens Medical Solutions Inc in recognition of excellent research in mining medical images
- **Siemens Recognition Award** 2008
In recognition of profound research leading to FDA-approved medical devices for lung cancer and colon cancer detection
- **Joaquin D. Diaz Price** at Rensselaer Polytechnic Institute 2002
Won the First Place out of around 100 graduate students
- **Outstanding Master Thesis** at Beijing Institute of Technology 1998
Only ten awards each year at the Institute
- **BeiFang Prize** at Beijing Institute of Technology 1995
A national prize in China awarded to outstanding undergraduate students, selected out of 527 students at the same grade of Beijing Institute of Technology

GRANTS AND PROJECTS

Grants Ongoing or Completed

Travelers Insurance Inc. *Creating Insurance-Specific Transformers for Representation Learning from Large-scale Unstructured Claim Text*, **\$585,138**, (second stage) to start on 2/23/2023 – 7/30/2025 – **Principal Investigator**

National Science Foundation (NSF), *NRT: TRANSdisciplinary Convergence in Educational Neuroscience Doctoral (TRANSCEND) Training Program*, **\$2,999,906**, 3/1/2022 – 2/28/2027, **Key Personnel/Co-Investigator**

National Institutes of Health (NIH), *Development of Outpatient Antiviral Cocktails Against SARS-CoV-2 and Other Potential Pandemic RNA Virus*, **\$1,465,100**, 5/1/2022 – 4/30/2027, **Co-Investigator**

UConn Convergence Awards for Research in Interdisciplinary Centers 2022 (Materials Research Science and Engineering Center (MRSEC)), *A Digital Twin Approach for Dynamic Evolution of Microstructure under Extreme Environments*, **\$100,000**, 3/2022-2/2023, **Co-Investigator**

Travelers Insurance Inc., *Change and Storm-Damage Detection from Aerial Images*, **\$292,406**, (first stage) 8/23/2021 – 2/22/2023 – **Principal Investigator**

Pfizer Pharmaceuticals Inc., *Exploring the Impact of Microbiome Diversity on Toxicological Outcomes in Preclinical Species*, **\$763,176**, 1/1/2021– 12/31/2022 – **Co-Principal Investigator** (the initiator for this project)

National Institutes of Health (NIH), National Institute of Drug Abuse (NIH/NIDA), *Multi-level Statistical Classification of Substance Use Disorders*, 1R01DA051922-01, **\$1,761,031**, 9/30/2020 – 6/30/2024 – **Principal Investigator**

US Department of Education, *Graduate Assistance in Areas of National Need (GAANN) Program*, **\$1,189,470**, 7/1/2019 – 6/30/2023 – **Co-Investigator**

National Institutes of Health: National Institute of Mental Health (NIH/NIMH), *Personalized Depression Treatment Supported by Mobile Sensor Analytics*, 1R01MH119678-01, **\$1,114,482**, 7/18/2019 – 7/17/2023 – **Principal Investigator**

National Science Foundation (NSF), *Multi-view Latent Class Discovery and Prediction with a Streamlined Analytics Platform*, IIS-1718738, **\$450,000**, 8/1/2017 – 7/31/2022 – **Principal Investigator**

National Institutes of Health (NIH), National Institute of Drug Abuse (NIH/NIDA), *Classifying Addictions Using Machine Learning Analysis of Multidimensional Data*, K02DA043063, **\$828,720**, 2/1/2017 – 12/31/2022 – **Sole Principal Investigator** – (Mid-career Independent Scientist Award)

National Science Foundation (NSF), *A High-Performance Computing Foundation for Whole Genome Prediction*, CCF-1514357, **\$750,000**, 7/1/2015 – 6/30/2021 – **Principal Investigator**

National Institutes of Health: National Institute of Drug Abuse (NIH/NIDA), *Quantitative Methods to Subtype Drug Dependence and Detect Novel Genetic Variants*, 1R01DA037349-01A1, **\$1,152,500**, 2/1/2015 – 11/30/2020 – **Sole Principal Investigator**

National Science Foundation (NSF), *BIGDATA: Novel Out-of-core and Parallel Algorithms for Processing Biological Big Data*, IIS-1447711, **\$1,200,000**, 9/1/2014 – 8/31/2019 – **Co-Principal Investigator**

National Science Foundation (NSF), *An Integrative Approach to Identifying Highly Heritable Composite Traits of Complex Phenotypes*, DBI-1356655, **\$585,717**, 7/1/2014 - 6/30/2020 – **Sole Principal Investigator**

National Science Foundation (NSF), *LifeRhythm: A Framework for Automatic and Pervasive Depression Screening Using Smartphones*, IIS-1407205, **\$734,415**, 8/1/2014 – 6/30/2018 – **Co-Principal Investigator**

National Science Foundation (NSF), *Is Imprecise Supervision Useful? Leveraging Ambiguous, Incomplete and Conflicting Annotations*, IIS-1320586, **\$371,836**, 9/1/2013 - 8/31/2018 – **Sole Principal Investigator**

US Department of Veteran Affairs (PHS VA), *Brain-Computer Interface (BCI) Enabled Memory Training for Schizophrenia*, I21-RX001731-01A1, **\$70,362** (UConn subcontract amount), 4/1/2016 - 3/31/2018 – **Site Principal Investigator**

Connecticut Institute of Clinical and Translational Sciences Research Funds (CICATS), *Improving Diagnosis of Acute Otitis Media*, **\$15,000** (UConn subcontract amount), 8/23/2013 - 8/30/2014 – **Co-Investigator**

National Institutes of Health (NIH), *Deep Sequencing Studies for Cannabis and Stimulant*, 5R01DA030976-04, **\$44,791** (UConn subcontract amount), 3/1/2012 - 5/31/2013 – **Co-Investigator**

Donaghue Foundation R3 Grant / CT Children's Medical Center, *Payer Provided Portals to Enhance Easy Breathing Adoption*, **\$10,139** (UConn subcontract amount), 2/15/2013 - 9/14/2014 – **Co-Investigator**

University of Connecticut Research Foundation Faculty Grant (UCRF), *Translating Asthma Disease Management into the Electronic Medical Records*, **\$28,000**, 7/1/2012 - 6/30/2013 – **Principal Investigator**

Grants Pending

National Institutes of Health: National Institute of Mental Health (NIH/NIMH), *Machine Learning of the Connectomics of Depression and Anxiety: an RDoC study*, **\$4,210,000**, (pending), 7/1/2023 –6/30/2028 – **Principal Investigator**

National Science Foundation (NSF), *Broadening STEM Participation Through Socially-Mindful and Accessible Data Science and Artificial Intelligence*, **\$499,908**, (pending), 2/12/2023 – 2/11/2024 – **Co-Principal Investigator**

National Science Foundation (NSF), *SCH: Graph-based Siamese Networks for Analyzing 3D Mammograms with Patient History for Personalized Cancer Prediction*, **\$1,146,917**, (pending), 8/1/2023 – 7/31/2027, **Co-Principal Investigator**

National Institutes of Health (NIH), National Institute of Biomedical Imaging and Bioengineering (NIBIB), *Deep Interpretation of 3D Medical Images to Improve Personalized Diagnosis via Transformers*, **\$984,183**, (pending), 9/1/2022- 8/31/2025, **Co-Investigator**

National Science Foundation (NSF), *CCF:SHF:Medium: Massively Scalable Techniques for Machine Learning*, **\$1,199,824**, (pending), 10/1/2022 – 9/30/2025, **Co-Principal Investigator**

National Science Foundation (NSF), *Collaborative Research: Robust, Distributed, and Efficient Graph Sparsification for Machine Learning*, **\$121,542**, (pending), 4/1/2022 – 3/31/2024, **Principal Investigator**

National Institutes of Health (NIH), *Novel Microbiome Analysis to Aid in Personalized Medicine*, **\$2,145,286**, (pending), 1/1/2023 – 12/30/2026, **Co-Investigator**

National Science Foundation (NSF), *Quantifying Vegetation-Climate Interactions and Uncertainties by Combining Process-based Models with Machine Learning*, **\$733,108**, (pending), 1/1/2022 – 12/30/2025, **Co-Principal Investigator**

National Science Foundation (NSF), *M3I: Mechanistic Modeling of Multi-scale Interactomics*, **\$20,000,000**, (pending), 09/01/2021 – 8/31/2026, **Principal Investigator** of an AI Institute combining multidisciplinary team of members from Yale Univ., Brown Univ., Carnegie Mellon Univ., and the Jackson Laboratory

National Institutes of Health, *Early Sex-based Precision Feeding and Nutrition on Gut Health, Growth and Development in Preterm Infants*, **\$4,829,594**, (pending), 7/1/2021 – 6/30/2026, **Co-Investigator**

National Science Foundation (NSF), *REU Site: TAX-AI: Research for Trustworthy, Accountable and eXplainable AI Systems*, **\$382,205**, (pending), 6/1/2022 – 5/30/2025, **Principal Investigator**

USDE/Institute of Educational Science, *Making AI Accessible to High School Students Through Summer Programs*, **\$1,076,414**, (pending), 10/15/2021 – 10/14/2024, **Principal Investigator**

SCIENTIFIC PUBLICATIONS

*The sign * indicates that Jinbo was the corresponding author. Names of italic fonts indicate Jinbo's graduate and undergraduate major advisees, names of italic fonts and underlined indicate the postdoctoral fellows she mentored, and names underlined are her own Ph.D. advisors.*

Submitted Journal Articles

1. * *Xinyu Wang*, *Xuetao Shi*, **Jinbo Bi**, and Minghu Song, Improving the Diversity of Generated Molecules by Chemical Language Processing, submitted to *Journal of Chemical Information and Modeling*, 2022.
2. * *Blake Gaines*, **Jinbo Bi**, and Minghu Song, Generating Reaction Fingerprints with Knowledge Graphs, submitted to *Information Sciences*, 2023.
3. * *Tan Zhu*, Wuyi Wang, Yu Chen, Henry R. Kranzler, Chiang-Shan R. Li, and **Jinbo Bi**, Machine Learning of Functional Connectivity to Biotype Alcohol and Nicotine Use Disorders, submitted to *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, 2023.

4. * *Guannan Liang, Qianqian Tong, Tan Zhu, and Jinbo Bi*, Communication-efficient Distributed Nonconvex Sparse Learning with Decentralized Non-IID Data, submitted to *Neurocomputing*, 2022.
5. * *Tan Zhu, Daniel Ruskin, Kyle M Kampman, and Jinbo Bi*, Machine Learning Analysis of Aggregated Cocaine Treatment Studies to Understand the Efficacy of Modafinil, submitted to *Addiction*, 2022.

Refereed Journal Articles

6. * *Fei Dou, Jin Lu, Tan Zhu, Jinbo Bi*, Indoor Positioning On-Device: A Federated Reinforcement Learning Approach with Heterogeneous Devices, accepted by *IEEE Internet of Things Journal (IoT)*, 2023.
7. * *Zhenxiang Gao, Xinyu Wang, Blake Gaines, Xuetao Shi, Jinbo Bi*, and Minghu Song, Fragment-based Deep Molecular Generation Using Hierarchical Chemical Graph Representation and Multi-resolution Graph Variational Autoencoder, *Molecular Informatics*, 2200215, 2023.
8. * *Guannan Liang, Qianqian Tong, Jiahao Ding, Miao Pan, and Jinbo Bi*, Stochastic Privacy-Preserving Methods for Nonconvex Sparse Learning, *Information Sciences*, 630:567-585, 2023. Impact factor: 8.2
9. Shweta Ware, Chaoqun Yue, Reynaldo Morillo, *Chao Shang*, Jinbo Bi, Jayesh Kamath, Alexander Russell, Dongjin Song, Athanasios Bamis, Bing Wang, Automatic Depression Screening Using Social Interaction Data on Smartphones, *Smart Health*, 26:100356, 2022.
10. * *Qianqian Tong, Guannan Liang, Jiahao Ding, Tan Zhu, Miao Pan, and Jinbo Bi*, Federated Optimization of l0-norm Regularized Sparse Learning, *Algorithms*, 15(9):319, <https://doi.org/10.3390/a15090319>, 2022. Impact factor: 2.27
11. * *Qinqing Liu, Meijian Yang, Koushan Mohammadi, Dongjin Song, Jinbo Bi*, and Guiling Wang, Machine Learning Crop Yield Models Based on Meteorological Features and Comparison with a Process-Based Model, *Artificial Intelligence for the Earth Systems*, 1-34, <https://doi.org/10.1175/AIES-D-22-0002.1>, 2022. Impact factor: TBD
12. * *Tan Zhu, Chloe Becquey, Yu Chen, Carl W Lejuez, Chiang-Shan R. Li, and Jinbo Bi*, Identifying Alcohol Misuse Biotypes from Neural Connectivity Markers and Concurrent Genetic Associations, *Translational Psychiatry*, <https://doi.org/10.1038/s41398-022-01983-1>, 2022. Impact factor: 7.99
13. Guangfei Li, Zhao Zhang, Yu Chen, Wuyi Wang, *Jinbo Bi*, Xiaoying Tang, and Chiang-Shan R. Li, Cognitive Challenges Are Better in Distinguishing Binge from Nonbinge Drinkers: An Exploratory Deep-Learning Study of fMRI Data of Multiple Behavioral Tasks and Resting State, *Journal of Magnetic Resonance Imaging*, 57(3):856-868, <https://doi.org/10.1002/jmri.28336>, 2022. Impact factor: 4.62
14. *Guoqing Chao*, Xingquan Zhu, Weiping Ding, Jinbo Bi, and Shiliang Sun, Editorial: Special Issue on Multi-view Learning, *Applied Intelligence*, pages 1-4, Springer US, April 2022. Impact factor: 1.58
15. * *Ko-Shin Chen, Tingyang Xu, Guannan Liang, Qianqian Tong*, Minghu Song, and *Jinbo Bi*, An Effective Tensor Regression with Latent Sparse Regularization, *Journal of Data Science*, 20(2), 2022. Impact factor: 1.19
16. * *Qianqian Tong, Guannan Liang, and Jinbo Bi*, Calibrating the Adaptive Learning Rate to Improve Convergence of ADAM, *Neurocomputing*, 2022. Impact factor: 5.7
17. * *Zhenxiang Gao, Xinyu Wang, Blake Gaines, Jinbo Bi*, and Minghu Song, A Deep Molecular Generative Model Based on Multi-Resolution Graph Variational Autoencoders, *ChemRxiv*, 2021.
18. Guangfei Li, Thang M. Le, Wuyi Wang, Simon Zhornitsky, Yu Chen, Shefali Chaudhary, *Tan Zhu*, Sheng Zhang, *Jinbo Bi*, Xiaoying Tang, Chiang-Shan R. Li, Perceived Stress, Self-Efficacy, and Cerebral Morphometric Features of Binge-Drinking Young Adults, *Neuroimage: Clinical*, 2021. Impact factor: 4.35
19. * *Guoqing Chao*, Shiliang Sun, and *Jinbo Bi*, A Survey on Multi-view Clustering, *IEEE Transactions on Artificial Intelligence*, 2(2):146-168, 2021. Impact factor: TBD

20. * *Chao Shang, Qinqing Liu, Qianqian Tong, Jiangwen Sun*, Minghu Song, and **Jinbo Bi**, Multi-view Spectral Graph Convolution with Consistent Edge Attention for Molecular Modeling, *Neurocomputing*, 2021. Impact factor: 5.7
21. Ioannis Papavasileiou, Zhi Qiao, Chenyu Zhang, Wenlong Zhang, **Jinbo Bi**, and Song Han, GaitCode: Gait-based Continuous Authentication Using Multimodal Learning and Wearable Sensors, *Smart Health*, 19:100162, <https://doi.org/10.1016/j.smhl.2020.100162>, 2021. Impact factor: 3.6
22. *Qinqing Liu*, Peng-Shuai Wang, *Chunjiang Zhu*, *Blake Gaines*, *Tan Zhu*, Jinbo Bi, and Minghu Song, OctSurf: Efficient Hierarchical Voxel-based Molecular Surface Representation for Protein-Ligand Affinity Prediction, *Journal of Molecular Graphics and Modelling*, <https://doi.org/10.1016/j.jmgm.2021.107865>, 2021. Impact factor: 2.91
23. * *Fei Dou, Jin Lu, Tingyang Xu*, Chun-His Huang, and **Jinbo Bi**, A Bisection Reinforcement Learning Approach to 3D Indoor Localization, *IEEE Internet of Things Journal*, 8(8):6519-6535, <https://doi.org/10.1109/JIOT.2020.3041204>, Nov. 2020. Impact factor: 9.94
24. Chaoqun Yue, Shweta Ware, Reynaldo Morillo, *Jin Lu*, *Chao Shang*, **Jinbo Bi**, Jayesh Kamath, Alexandder Russell, Athanasios Bamis, Bing Wang, Automatic Depression Predicting Using Internet Traffic Characteristics on Smartphones, *Smart Health*, 18:100137, <https://doi.org/10.1016/j.smhl.2020.100137>, 2020. Impact factor: 3.6
25. * *Chunjiang Zhu*, Minghu Song, *Qinqing Liu*, Chloe Becquey, and **Jinbo Bi**, Benchmark on Indexing Algorithms for Accelerating Molecular Similarity Search, *Journal of Chemical Information and Modeling*, <https://doi.org/10.1021/acs.jcim.0c00393>, 2020. Impact factor: 6.16
26. * *Qianqian Tong, Guannan Liang*, Xingyu Cai, Chunjiang Zhu, and **Jinbo Bi**, Asynchronous Parallel Stochastic Quasi-Newton Method, *Parallel Computing*, 101:102721, <https://doi.org/10.1016/j.parco.2020.102721>, 2020. Impact factor: 1.26
27. * *Soumitra Pal, Tingyang Xu*, Tianbao Yang, Rajasekaran Sanguthevar, and Jinbo Bi, Hybrid-DCA: A Double Asynchronous Approach for Stochastic Dual Coordinate Ascent, *Journal of Parallel and Distributing Computing (JPDC)*, 143:47-66, <https://doi.org/10.1016/j.jpdc.2020.04.002>, 2020. Impact factor: 2.30
28. Le Yu, Tomas Silva Santisteban, *Qinqing Liu*, Changmin Hu, **Jinbo Bi**, and Mei Wei, Effect of Three-Dimensional Porosity Gradients of Biomimetic Coatings on Their Bonding Strength and Cell Behavior, *Journal of Biomedical Materials Research*, <https://doi.org/10.1002/jbm.a.37046>, 2020. Impact factor: 3.53
29. Jayesh Kamath, **Jinbo Bi**, Alexander Russell, and Bing Wang, Grant Report on SCH: Personalized Depression Treatment Supported by Mobile Sensor Analytics, *Journal of Psychiatry and Brain Science*, 2020;5:e200010. <https://doi.org/10.20900/jpbs.20200010>, 2020. Impact factor: TBD
30. Dina Abdelhafiz, **Jinbo Bi**, Reda Ammar, Clifford Yang, and Sheida Nabavi, Convolutional Neural Network for Automated Mass Segmentation in Mammography, *BMC Bioinformatics*, 21(S1)-192, <https://bmcbioinformatics.biomedcentral.com/articles/10.1186/s12859-020-3521-y>, 2020. Impact factor: 3.17
31. Guang Chen, Zhiqiang Shen, Akshay Iyer, Umar Farooq Ghumman, Shan Tang, **Jinbo Bi**, Wei Chen, and Ying Li, Machine Learning Assisted De Novo Design of Organic Molecules and Polymers: Opportunities and Challenges, *Polymers*, 12(1):163; <https://doi.org/10.3390/polym12010163>, 2020. Impact factor: 3.8
32. Shweta Ware, Chaoqun Yue, Reynaldo Morillo, *Jin Lu*, *Chao Shang*, **Jinbo Bi**, Jayesh Kamath, Alexander Russell, Athanasios Bamis, and Bing Wang, Predicting Depressive Symptoms using Smartphone Data, *Smart Health*, <https://doi.org/10.1016/j.smhl.2019.100093>, Nov. 2019. Impact factor: 2.7
33. * *Jiangwen Sun*, Henry R Kranzler, Joel Gelernter, and **Jinbo Bi**, A Genome-wide Association Study of Cocaine Use Disorder Accounting for Phenotypic Heterogeneity and Gene-Environment Interaction, *Journal of Psychiatry and Neuroscience*, 45(1):34-44, doi:10.1503/jpn.180098, Jan 2020. Impact factor: 5.9

34. * Guoqing Chao, Jiangwen Sun, Jin Lu, An-Li Wang, Daniel D. Langleben, Chiang-Shan (Ray) Li, and **Jinbo Bi**, Multi-view Cluster Analysis with Incomplete Data to Understand Treatment Effects, *Information Sciences*, <https://doi.org/10.1016/j.ins.2019.04.039>, April 2019. Impact factor: 5.5
35. * Chunjiang Zhu, Kam-Yiu Lam, Joseph Kee Yin Ng, and **Jinbo Bi**, On the VC-dimension of Unique Round-trip Shortest Path Systems, *Information Processing Letters*, 145:1-5, 2019. Impact factor: 0.76
36. Shweta Ware, Chaoqun Yue, Reynaldo Morillo, Jin Lu, Chao Shang, **Jinbo Bi**, Jayesh Kamath, Alexander Russell, Athanasios Bamis, and Bing Wang, Large-scale Automatic Depression Screening Using Meta-data from WiFi Infrastructure, (UbiComp) *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies* (IMWUT), a premier journal for research relevant to the post-PC era, 2(4):195, pp. 195:1-195:27, 2019. Impact factor: 3.7
37. Simon Zhornitsky, Sheng Zhang, Jaime S. Ide, Herta H Chao, Wuyi Wang, Thang M. Le, Robert F. Leeman, **Jinbo Bi**, John H. Krystal, Chiang-shan R. Li, Alcohol Expectancy and Cerebral Responses to Cue-Elicited Craving in Adult Nondependent Drinkers, *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, S2451-9022(18)30328-8, doi:10.1016/j.bpsc.2018.11.012, Dec. 2018. Impact factor: 3.4
38. Chaoqun Yue, Shweta Ware, Reynaldo Morillo, Jin Lu, Chao Shang, **Jinbo Bi**, Jayesh Kamath, Alexander Russell, Athanasios Bamis, and Bing Wang, Fusing Location Data for Depression Prediction, *IEEE Transactions on Big Data*, DOI:10.1109/TBDDATA.2018.2872569, Oct. 2018. Impact factor: 5.7
39. * Jin Lu, Jiangwen Sun, Xinyu Wang, Henry R Kranzler, Joel Gelernter and **Jinbo Bi**, Inferring Phenotypes from Substance Use via Collaborative Matrix Completion, *BMC Systems Biology*, 12(6):104, pp. 15-27, doi:10.1186/s12918-018-0623-5, 2018. Impact factor: 2.5
40. * Jin Lu, Chao Shang, Chaoqun Yue, Reynaldo Morillo, Shweta Ware, Jayesh Kamath, Athanasios Bamis, Alexander Russell, Bing Wang, and **Jinbo Bi**, Joint Modeling of Heterogeneous Sensing Data for Depression Assessment via Multi-task Learning, (UbiComp), *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies* (IMWUT), a premier journal for research relevant to the post-PC era, 2(1):21, pp.21:1—21:21, 2018. Impact factor: 3.7
41. * Jiangwen Sun, Zhongliang Jiang, Xiuchun Tian, and **Jinbo Bi**, A Cross-Species Bi-Clustering Approach to Identifying Conserved Co-regulated Genes, *Bioinformatics (Oxford)*, 32(12):i137-146, 2016. Impact factor: 7.3
42. * Xin Wang and **Jinbo Bi**, Bi-convex Optimization to Learn Classifiers from Multiple Biomedical Annotations, *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, 14(3):564-575, doi:10.1109/TCBB.2016.2576457, 2016. Impact factor: 1.61
43. * Jason Johannesen, **Jinbo Bi**, Ruhua Jiang, Joshua Kenney and Chi-Ming Chen, Machine Learning Identification of EEG Features Predicting Working Memory Performance in Schizophrenia and Healthy Adults, *BMC Neuropsychiatric Electrophysiology*, 2(3):1-21, 2016. DOI 10.1186/s40810-016-0017-0, Invited to initiate this journal in its first issue, and peer-reviewed. Impact factor: TBD
44. * Xin Wang, **Jinbo Bi**, Shipeng Yu, Jiangwen Sun, and Minghu Song, Multiplicative Multi-Task Feature Learning, *Journal of Machine Learning Research*, 17(80):1-33, 2016. Impact factor: 4.1
45. * Jiangwen Sun, Henry R Kranzler, and **Jinbo Bi**, An Effective Method to Identify Heritable Components from Multivariate Phenotypes, *PLoS ONE* 10(12):e0144418. doi:10.1371/journal.pone.0144418, 2015. Impact Factor: 3.44
46. * Jiangwen Sun, Henry R. Kranzler, and **Jinbo Bi**, Refining Multivariate Disease Phenotypes for High Chip Heritability, *BMC Medical Genomics*, 8:S3, DOI:10.1186/1755-8794-8-S3-S3, pp. 1-14, 2015. Impact factor: 3.87
47. * **Jinbo Bi** and Xin Wang, Learning Classifiers from Dual Annotation Ambiguity via a Min-Max Framework, *Neurocomputing*, 151(2):891-904, 2015. Impact Factor: 3.32.

48. * *Xin Wang*, Tulio Valdez, and **Jinbo Bi**, Detecting Tympanostomy Tubes from Ear Images Using Offline and Online Training, *Computers in Biology and Medicine*, 61:107-118, 2015. Impact Factor: 2.12
49. Steve Demurjian, *Alberto De la Rosa Algarín*, **Jinbo Bi**, Soloman Berhe, Thomas Agresta, Xiaoyan Wang, Michael Blechner, (2014). A Viewpoint of Security for Digital Health Care: What's There? What Works? What's Needed?, *International Journal of Privacy and Health Information Management*, 2(1):1-21, 2014. Impact Factor: 1.29
50. Zongliang Jiang, *Jiangwen Sun*, Hong Dong, Oscar Luo, Xinbao Zheng, Craig Oberfell, Yong Tang, **Jinbo Bi**, Rachel O'Neill, Yijun Ruan, Jingbo Chen and Xiuchun (Cindy) Tian, Transcriptional Profiles of Bovine In Vivo Pre-implantation Development, *BMC Genomics*, 15:756-770, 2014, Impact Factor: 4.04 (identified as a "Highly Accessed" article by the journal)
51. * *Jiangwen Sun*, **Jinbo Bi** and Henry R. Kranzler, Multi-view Singular Value Decomposition for Disease Subtyping and Genetic Associations. *BMC Genetics*, 15(73):1-12, 2014. Impact Factor: 2.80 (identified as a "Highly Accessed" article by the journal)
52. * **Jinbo Bi**, Joel Gelernter, *Jiangwen Sun*, Henry R. Kranzler, Comparing the Utility of Homogeneous Subtypes of Cocaine Use and Related Behaviors with DSM-IV Cocaine Dependence as Traits for Association Analysis. *American Journal of Medical Genetics (Part B) Neuropsychiatric Genetics (AJMG)*, 165B(2):148-156, 2014. Impact Factor: 3.42
53. * *Jiangwen Sun*, **Jinbo Bi** and Henry R. Kranzler, Multiview Comodeling to Improve Genetic Association of Complex Disease Phenotypes, *IEEE Journal of Biomedical and Health Informatics (JBHI)*, 18(2):548-554, 2014. Impact Factor: 3.85
54. Feng Zhu, Chunxia Yan, Yi-chong Wen, *Jiayin Wang*, **Jinbo Bi**, Ya-ling Zhao, Yang Zhao, Lai Wei, Yucheng Guo, Jing Wang, Yan Zhao, Chengge Gao, Wei Jia and Shengbin Li, Dopamine D1 Receptor Gene Variation Modulates Opioid Dependence Risk by Affecting Transition to Addiction, *PLoS One*, 8(8):e70805:1-11, 2013. Impact Factor: 4.41
55. * **Jinbo Bi**, *Jiangwen Sun*, *Yu Wu*, Howard Tennen, Stephen Armeli, A Machine Learning Approach to College Drinking Prediction and Risk Factor Identification, *ACM Transactions on Intelligent Systems and Technology (TIST)*, 9(4):1-24, 2013. Impact Factor: 9.39
56. *Subrata Saha*, Sanguthevar Rajasekaran, **Jinbo Bi** and *Sudipta Pathak*. Efficient Techniques for Genotype-Phenotype Correlational Analysis, *BMC Medical Informatics and Decision Making (MIDM)*, 13(1):41-59. 2013. Impact Factor: 2.13
57. * *Jiangwen Sun*, **Jinbo Bi**, Grace Chan, David Oslin, Lindsay Farrer, Joel Gelernter, Henry R Kranzler Improved Methods to Identify Stable, Highly Heritable Subtypes of Opioid Use and Related Behaviors, *Addictive Behaviors*, 37(10):1138-1144, 2012, Impact Factor 3.14.
58. Shipeng Yu, **Jinbo Bi** and Jieping Ye, Matrix-Variate and Higher-Order Probabilistic Projections, *Data Mining and Knowledge Discovery*, 22(3):372-392, 2011. Impact Factor: 2.48.
59. Maleeha Qazi, Glenn Fung, Siriram Krishnan, **Jinbo Bi**, Bharat Rao, and Alan Katz, Automated Heart Abnormality Detection Using Sparse Linear Classifiers, *IEEE Engineering in Medicine and Biology*, 26(2):56-63, 2007, Impact Factor: 3.05.
60. Terran Lane, Bharat Rao, **Jinbo Bi**, Jianming Liang, Marcos Salganicoff, On the Medical Frontier: the 2006 KDD Cup Competition, *ACM Journal SIGKDD Explorations*, 8(2):39-46, December 2006, Impact Factor: 6.48.
61. Yixin Chen, **Jinbo Bi**, James Z. Wang, MILES: Multiple-Instance Learning via Embedded Instance Selection, *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, 28(12):1931-1947, 2006, Impact Factor: 17.73.
62. **Jinbo Bi** and *Kristin P. Bennett*, A Geometric Approach to Support Vector Regression, *Neurocomputing*, 55(1-2):79-108, 2003, Impact Factor: 3.32.

63. **Jinbo Bi**, Kristin P. Bennett, Curt Breneman and Minghu Song, Dimensionality Reduction via Sparse Support Vector Machines, *Journal of Machine Learning Research (JMLR)*, 3:1229-1243, 2003, Impact Factor: 7.48 in 2005 and 4.1 in 2019.
64. Minghu Song, Curt Breneman, **Jinbo Bi**, N. Sukumar and Kristin Bennett Prediction of Protein Retention Times in Anion-exchange Chromatography Systems Using Support Vector Machines, *Journal of Chemical Information and Modeling*, 42(6):1347-1357, 2003, Impact Factor: 4.07.
65. **Jinbo Bi** and Cang-Pu Wu, Efficient Temporal Difference Learning with Adaptive λ , *Journal of Beijing Institute of Technology*, (English edition), 8(2):251-257, 1999, Impact Factor: 1.583.
66. * **Jinbo Bi**, An Efficient Algorithm for Unconstrained Optimization Problems: --A positive definite update from negative Broyden family, *Journal of Beijing Institute of Technology*, (English edition), 6(4):299-304, 1997, Impact Factor: 1.583.

Book Chapters

67. Luca Bogoni, **Jinbo Bi**, Charles Florin, Anna K. Jerebko, Arun Krishnan, Sangmin Park, Vikas Raykar, and Marcos Salganicoff, "Lung Nodule Detection", a book chapter in *ImageCLEF, The Information Retrieval Series 32*, H. Muller et al ed., Springer-Verlag, 2010.
68. Curt M. Breneman, Kristin P. Bennett, Mark J. Embrechts, Steven M. Cramer, Minghu Song and **Jinbo Bi**, "Descriptor Generation, Selection and Model Building in Quantitative Structure-Property Analysis", book chapter in *Experimental Design for Combinatorial and High Throughput Materials Development*, J. Crawse ed., Wiley, 2002.

Articles Submitted to Highly-Competitive Computing Conferences

69. * *Fei Dou, Tan Zhu*, Dongjin Song, Caiwen Ding, and **Jinbo Bi**, Latent Orthonormal Contrastive Learning in Disaster Damage Assessment Using Paired Remote Sensing Imagery, submitted to ICCV, 2023.
70. * *Tan Zhu, Fei Dou, Xinyu Wang*, Jin Lu, and **Jinbo Bi**, Polyhedron Attention Module: Learning Adaptive-order Interactions, submitted to NeurIPS, 2023.
71. Chunjiang Zhu, Jing Deng, **Jinbo Bi**, Adversarial Perturbations on Graph Sparsification for Graph Machine Learning, submitted to ICML, 2022.
72. * *Qianqian Tong, Guannan Liang*, and **Jinbo Bi**, Federated Adaptive Gradient Methods with Non-IID Decentralized Data, submitted to AAAI, 2022.

Articles Published in Highly-Competitive Computing Conferences (for CS, conference papers are more competitive than journal papers)

73. * *Qinqing Liu, Fei Dou*, Meijian Yang, Ezana Amdework, Guiling Wang, **Jinbo Bi**, Customized Positional Encoding to Combine Static and Time-varying Data in Robust Representation Learning for Crop Yield Prediction, to appear in *Proceedings of International Joint Conference on Artificial Intelligence (IJCAI)*, 2023.
74. Marjan Hosseini, *Aaron Palmer*, William Manka, Patrick GS Grady, Venkata Patchigolla, **Jinbo Bi**, Rachel J O'Naill, Zhiyi Chi, and Derek Aguiar, Deep Statistical Modelling of Nanopore Sequencing Translocation Times Reveals Latent non-B DNA Structures, accepted by (Oxford) *Bioinformatics – Proceedings of Intelligent Systems for Molecular Biology (ISMB)*, 2023.
75. * *Aaron Palmer*, Zhiyi Chi, Derek Aguiar, and **Jinbo Bi**, Auto-Encoding Goodness-of-Fit, to appear in *Proceedings of International Conference on Learning Representations (ICLR)*, 2022.
76. Chandan Chunduru, Chunjiang Zhu, *Blake Gaines*, and **Jinbo Bi**, Heterogeneous Graph Sparsification for Efficient Representation Learning, *IEEE International Conference on Bioinformatics and Biomedicine (BIBM)*, 1891-1896, 2022.

77. Hongwu Peng, Shaoyi Huang, Shiyang Chen, Bingbing Li, Tong Geng, Ang Li, Weiwen Jiang, Wujie Wen, **Jinbo Bi**, Hang Liu, Caiwen Ding, A Length Adaptive Algorithm-Hardware Co-design of Transformer on FPGA Through Sparse Attention and Dynamic Pipelining, *Proceedings of the 59th ACM/IEEE Design Automation*, pp.1135-1140, 2022.
78. * Chunjiang Zhu, Qinqing Liu, and **Jinbo Bi**, Spectral Vertex Sparsifiers and Pair-wise Spanners Over Distributed Graphs, *Proceedings of International Conference on Machine Learning (ICML)*, vol. 139, pp. 12890-12900, 2021.
79. * Chunjiang Zhu, Qinqing Liu, and **Jinbo Bi**, Communication Efficient Distributed Hypergraph Clustering, *Proceedings of the 44th International ACM Conference on Research and Development in Information Retrieval (SIGIR)*, pp. 2131-2135, 2021.
80. Hongwu Peng, Shiyang Chen, Zhepeng Wang, Junhuan Yang, Scott Weitze, Tong Geng, Ang Li, **Jinbo Bi**, Minghu Song, Weiwen Jiang, Hang Liu, and Caiwen Ding, Optimizing FPGA-based Accelerator Design for Large-Scale Molecular Similarity Search, *Proceedings of International Conference on Computer-Aided Design (ICCAD)*, 2021.
81. Yijue Wang, Chenghong Wang, Zigeng Wang, Shanglin Zhou, Hang Liu, **Jinbo Bi**, Caiwen Ding, Sanguthevar Rajasekaran, Against Membership Inference Attack: Pruning is All You Need, In *Proceedings of the 30th International Joint Conference on Artificial Intelligence (IJCAI)*, 2021. Acceptance rate: 13.9%
82. Chao Shang, Jie Chen and **Jinbo Bi**, Discrete Graph Structure Learning for Forecasting Multiple Time Series, *Proceedings of the International Conference on Learning Representation (ICLR)*, 2021. Acceptance Rate 28.7%
83. Jiahao Ding, Guannan Liang, **Jinbo Bi**, Miao Pan, Differentially Private and Communication Efficient Collaborative Learning, to appear in *Proceedings of the 35th AAAI Conference on Artificial Intelligence (AAAI)*, 35(8):7219-7227, 2021. Acceptance Rate 21%
84. * Tan Zhu, Guannan Liang, Chunjiang Zhu, Haining Li, and **Jinbo Bi**, An Efficient Algorithm for Deep Stochastic Contextual Bandits, to appear in *Proceedings of the 35th AAAI Conference on Artificial Intelligence (AAAI)*, 2021. Acceptance Rate 21%
85. * Guannan Liang, Qianqian Tong, Jiahao Ding, Miao Pan, and **Jinbo Bi**, Effective Proximal Methods for Nonconvex Nonsmooth Regularized Learning, *Proceedings of IEEE International Conference on Data Mining (ICDM)*, 2020. Acceptance Rate 14%
86. Jiahao Ding, Jingyi Wang, Guannan Liang, **Jinbo Bi**, and Miao Pan, Towards Plausible Differentially Private ADMM Based Distributed Machine Learning, to appear in *Proceedings of the 29th ACM International Conference on Information and Knowledge Management (CIKM)*, pp.285-291, 2020.
87. Xia Xiao, Chao Shang, Jinbo Bi, and Sanguthevar Rajasekaran, Predicting Outcomes of Chemical Reactions: A Seq2Seq Approach with Multiview Attention and Edge Embedding, to appear in the *Proceedings of International Joint Conference on Neural Networks (IJCNN)*, 2020.
88. * Guannan Liang, Qianqian Tong, Chunjiang Zhu, and Jinbo Bi, An Effective Hard Thresholding Method Based on Stochastic Variance Reduction for Nonconvex Sparse Learning, *Proceedings of the 34th AAAI Conference on Artificial Intelligence (AAAI)*, 2020, Vol 34, No. 2 pp. 1585-1592. Acceptance Rate 14%
89. Chunjiang Zhu, Tan Zhu, Haining Li, Jinbo Bi, and Minghu Song, Accelerating Large-Scale Molecular Similarity Search through Exploiting High Performance Computing, *Proceedings of IEEE International Conference on Bioinformatics and Biomedicine (BIBM)*, pp.330-333, doi: 10.1109/BIBM47256.2019.8982950, 2019. Acceptance Rate 19%
90. Shweta Ware, Chaoqun Yue, Reynaldo Morillo, Jin Lu, Chao Shang, Jinbo Bi, Jayesh Kamath, Alexander Russell, Athanasios Bamis, and Bing Wang, Predicting Depression Symptoms Using Smartphone Data,

91. Dina Abdelhafiz, Sheida Nabavi, Reda Ammar, Clifford Yang, and Jinbo Bi, Residual Deep Learning System for Mass Segmentation and Classification in Mammography, *Proceedings of the 10th ACM International Conference on Bioinformatics, Computational Biology and Health*, pp. 475-484, 2019.
92. * Chunjiang Zhu, Lam Kam Yiu, Song Han, and **Jinbo Bi**, Improved Dynamic Graph Learning through Fault-Tolerant Sparsification, *Proceedings of International Conference on Machine Learning (ICML)*, pp. 7624-7633, 2019. Acceptance Rate 22%
93. * Chunjiang Zhu, Lam Kam Yiu, Song Han, and **Jinbo Bi**, Communication-optimal Distributed Dynamic Graph Clustering, *Proceedings of the 33rd AAAI Conference on Artificial Intelligence (AAAI)*, 33(01):5957-5964, 2019. Acceptance Rate 16%
94. Chao Shang, Yun Tang, Jing Huang, **Jinbo Bi**, Xiaodong He, and Bowen Zhou, End-to-End Structure-Aware Convolutional Networks for Knowledge Base Completion, to appear in the *Proceedings of the 33rd AAAI Conference on Artificial Intelligence (AAAI)*, 2019. Acceptance Rate 16%
95. * Fei Dou, Jin Lu, Zigeng Wang, Xia Xiao, **Jinbo Bi**, Chun-Hsi Huang, Top-down Indoor Localization with Wi-Fi Fingerprints using Deep Q-network, to appear in the *Proceedings of the 15th IEEE International Conference on Mobile Ad-hoc and Sensor Systems*, 2018. Acceptance Rate 25%
96. Dina Abdelhafiz, Sheida Nabavi, Reda Ammar, Clifford Yang, and **Jinbo Bi**, Convolutional Neural Network for Automated Mass Segmentation in Mammography, *Proceedings of IEEE 8th International Conference on Computational Advances in Bio and Medical Sciences (ICCABS)*, pp.1-1, 2018.
97. * Aaron Palmer, Dipak K. Dey, and **Jinbo Bi**, Reforming Generative Autoencoders Using Parametric Hypothesis Testing, *Proceedings of Uncertainty in Artificial Intelligence (UAI)*, pp.1-10, 2018. Acceptance Rate 30%
98. * Ko-Shin Chen, Tingyang Xu, and **Jinbo Bi**, Latent Sparse Modeling of Longitudinal Multi-Dimensional Data, *Proceedings of the 32nd AAAI Conference on Artificial Intelligence (AAAI)*, pp.2135-2142, 2018. Acceptance Rate 24%
99. * Chao Shang, Aaron Palmer, Jiangwen Sun, Ko-Shin Chen, Jin Lu, and **Jinbo Bi**, VIGAN: Missing View Imputation with Generative Adversarial Networks, *Proceedings of IEEE International Conference on Big Data (BigData)*, pp.766-775, 2017. Acceptance Rate 18%
100. Tingyang Xu, Tan Yan, Dongjin Song, Wei Cheng, Haifeng Chen, Guofei Jiang, and **Jinbo Bi**, Identifying and Quantifying Nonlinear Structured Relationships in Complex Manufacturing Systems, *Proceedings of IEEE International Conference on Big Data (BigData)*, pp.1357-1362, 2017. Acceptance Rate 18%
101. * Jin Lu, Jiangwen Sun, Xinyu Wang, Henry R. Kranzler, Joel Gelernter, and **Jinbo Bi**, Collaborative Phenotype Inference from Comorbid Substance Use Disorders and Genotypes, *Proceedings of IEEE International Conference on Bioinformatics and Biomedicine (BIBM)*, pp.392-397, 2017. Acceptance Rate 19%
102. Chaoqun Yue, Shweta Ware, Reynaldo Morillo, Jin Lu, Chao Shang, **Jinbo Bi**, Jayesh Kamath, Alexander Russell, Athanasios Bamis, and Bing Wang, Fusing Location Data for Depression Prediction, *Proceedings of the 14th International Conference on Ubiquitous Intelligence and Computing (UIC)*, DOI: 10.1109/UIC-ATC.2017.8397515, 2017. Acceptance Rate 32%
103. Ioannis Papavasileiou, Wenlong Zhang, Xin Wang, **Jinbo Bi**, Li Zhang, Song Han, Classification of Neurological Gait Disorders Using Multi-task Feature Learning, *Proceedings of the 2nd IEEE/ACM Conference on Connected Health: Applications, Systems and Engineering Technologies (CHASE)*, DOI: 10.1109/CHASE.2017.78, 2017. Acceptance Rate 30%

104. * *Jin Lu, Guannan Liang, Jiangwen Sun* and **Jinbo Bi**, A Sparse Interactive Model for Inductive Matrix Completion, in *Advances in Neural Information Processing Systems (NIPS)*, pp. 4071-4079, 2016. Acceptance Rate 21%
105. Asma Ahmad Farhan, Chaoqun Yue, Reynaldo Morillo, Shweta Ware, *Jin Lu, Jinbo Bi*, Jayesh Kamath, Alexander Russel, Athanasios Bamis, and Bing Wang, Behavior vs. Introspection: Refining Prediction of Clinical Depression via Smartphone Sensing Data, *Proceedings of IEEE Wireless Health Conference*, pp.1-8, 2016. Acceptance Rate 50%
106. Asma Ahmad Farhan, *Jin Lu, Jinbo Bi*, Alexander Russell, Bing Wang, and Athanasios Bamis, Multiview Bi-Clustering to Identify Smartphone Sensing Features Indicative of Depression, *Proceedings of the 1st IEEE Conference on Connected Health Applications, Systems and Engineering Technologies (CHASE)*, pp. 264-273, 2016. Acceptance Rate 30%
107. * *Tingyang Xu, Jiangwen Sun*, Erin E. Connor, and **Jinbo Bi**, Quantifying Feed Efficiency of Dairy Cattle for Genome-wide Association Analysis, *Proceedings of the IEEE International Conference on Bioinformatics and Biomedicine (BIBM)*, pp. 131-134, 2015. Acceptance Rate 19%
108. * *Tingyang Xu, Jiangwen Sun*, and **Jinbo Bi**, Longitudinal LASSO: Jointly Learning Features and Temporal Contingency for Outcome Prediction, *Proceedings of the 21st ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (SIGKDD)*, pp. 1345-1354, 2015. Acceptance Rate: 19%
109. * *Jiangwen Sun, Jin Lu, Tingyang Xu*, and **Jinbo Bi**, Multi-view Sparse Co-clustering via Proximal Alternating Linearized Minimization, *Proceedings of the 32nd International Conference on Machine Learning (ICML)*, pp. 757-766, 2015. Acceptance Rate 26%
110. * **Jinbo Bi**, *Tingyang Xu*, Chi-Ming Chen, and Jason Johannesen, Spatio-temporal Modeling of EEG Data for Understanding Working Memory, peer reviewed and archived by *ICML Workshop on Statistics, Machine Learning and Neuroscience*, 2015.
111. * *Xin Wang, Jinbo Bi*, Shipeng Yu, and *Jiangwen Sun*, On Multiplicative Multi-Task Feature Learning, in *Advances in Neural Information Processing Systems (NIPS)*, pp. 2411-2419, 2014. Acceptance Rate 25%
112. * *Jiangwen Sun, Jinbo Bi* and Henry R. Kranzler, Identifying Heritable Composite Traits from Multivariate Phenotypes with Genome-wide SNPs, *Proceedings of IEEE International Conference on Bioinformatics and Biomedicine (BIBM)*, pp. 340-344, 2014. Acceptance Rate 19%
113. * **Jinbo Bi**, *Jiangwen Sun, Tingyang Xu, Jin Lu*, Yansong Ma, and Lijuan Qiu, A Sparse Integrative Cluster Analysis for Understanding Soybean Phenotypes, *Workshop Proceedings of IEEE International Conference on Bioinformatics and Biomedicine (BIBM)*, pp.1-7, 2014. Won the best paper award out of 200 workshop papers in 17 workshops
114. * *Tingyang Xu, Jinbo Bi*, and Michelle M Cloutier, Translating Effective Paper-based Disease Management into Electronic Medical Systems, *Proceedings of the 2nd IEEE International Conference on Health Informatics (ICHI)*, pp. 101-108, 2014. Acceptance Rate 29%
115. * *Jiangwen Sun, Jinbo Bi*, and Henry R. Kranzler, Multi-view Biclustering for Genotype-Phenotype Association Studies of Complex Diseases, *Proceedings of IEEE International Conference on Bioinformatics and Biomedicine (BIBM)*, pp. 316-321, 2013. Acceptance Rate 19%
116. * *Jiangwen Sun, Jinbo Bi*, and Henry R. Kranzler, Quadratic Optimization to Identify Highly Heritable Quantitative Traits from Complex Phenotypic Features, *Proceedings of the 19th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (SIGKDD)*, pp. 811-819, 2013. Acceptance Rate 17%
117. * *Jiangwen Sun, Jinbo Bi*, and Henry R. Kranzler, A Multi-Objective Program for Quantitative Subtyping of Clinically Relevant Phenotypes, *Proceedings of IEEE International Conference on Bioinformatics and Biomedicine (BIBM)*, pp. 256-261, 2012. Acceptance Rate 19%

118. * **Jinbo Bi**, Arun Abraham, An Intelligent Web-Based Decision Support Tool for Enhancing Asthma Guideline Adherence, *Proceedings of the 2nd ACM SIGHIT International Health Informatics Symposium (IHI 2012)*, pp. 51-60, 2012. Acceptance Rate 30%
119. * Michael Zuba, Joseph Gilbert, Yu Wu, **Jinbo Bi**, Howard Tennen, Stephen Armeli, 1-Norm Support Vector Machine for College Drinking Risk Factor Identification, *Proceedings of the 2nd ACM SIGHIT International Health Informatics Symposium (IHI 2012)*, pp. 651-660, 2012. Acceptance Rate 30%
120. Meizhu Liu, Le Lu, **Jinbo Bi**, Vikas Raykar, Matthias Wolf, and Marcos Salganicoff, Robust Large Scale Prone-Supine Polyp Matching Using Local Features: A Metric Learning Approach, *Proceedings of the 14th International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI)*, 14:75-82, 2011. Acceptance Rate 33%
121. * **Jinbo Bi**, Dijia Wu, Le Lu, Meizhu Liu, Yimo Tao and Matthias Wolf, AdaBoost on Low-Rank PSD Matrices for Metric Learning, *Proceedings of the IEEE International Conference on Computer Vision and Pattern Recognition (CVPR)*, pp. 2617-2624, 2011. Acceptance Rate 22%
122. Le. Lu, **Jinbo Bi**, Matthias Wolf, and Marcos Salganicoff, Effective 3D Object Detection and Regression Using Probabilistic Segmentation Features in CT Images, *Proceedings of IEEE International Conference on Computer Vision and Pattern Recognition (CVPR)*, pp. 1049-1056, 2011. Acceptance Rate 22%
123. * Dijia Wu, Le Lu, **Jinbo Bi**, Yoshihisa Shinagawa, Kim Boyer, Arun Krishnan, and Marcos Salganicoff, Stratified Learning of Local Anatomical Context for Lung Nodules in CT Images, *Proceedings of the IEEE International Conference on Computer Vision and Pattern Recognition (CVPR)*, pp. 2791-2798, 2010. Acceptance Rate 22.3%
124. Le Lu, Matthias Wolf, **Jinbo Bi**, and Marcos Salganicoff, Correcting Misalignment of Automatic 3D Detection by Classification: Ileo-Cecal Valve False Positive Reduction in CT Colonography, *Proceedings of the 13th International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI), Medical Computer Vision 2010*, Lecture Notes in Computer Science, No. 6533, pp. 118-129, 2010. Acceptance Rate 31.7%
125. Le Lu, **Jinbo Bi**, Shipeng Yu, Zhigang Peng, Arun Krishnan, and Xiang Sean Zhou, Hierarchical Learning for Tubular Structure Parsing in Medical Imaging: A Study on Coronary Arteries Using 3D CT Angiography, *Proceedings of the IEEE International Conference on Computer Vision (ICCV)*, pp.2021-2028, 2009. Acceptance Rate 17%
126. Le Lu, Matthias Wolf, Jianming Liang, Murat Dundar, **Jinbo Bi**, and Marcos Salganicoff, A Two-Level Approach towards Semantic Colon Segmentation: Removing Extra-colonic Findings, *Proceedings of Annual Conference on Medical Imaging Computing and Computer Assisted Intervention (MICCAI)*, pp. 1009-1016, 2009. Acceptance Rate 32%
127. * Dijia Wu, **Jinbo Bi**, and Kim Boyer, A Min-Max Framework of Cascaded Classifier with Multiple Instance Learning for Computer Aided Diagnosis, *Proceedings of IEEE International Conference on Computer Vision and Pattern Recognition (CVPR)*, pp. 1359-1367, 2009. Acceptance Rate 22%
128. Glenn Fung, Balaji Krishnapuram, **Jinbo Bi**, Murat Dundar, Vikas Raykar, Romer Rosales, Sriram Krishnan, and Bharat Rao, Mining Medical Images, *Data Mining Case Study Competition*, 2009. (Won the best Data Mining Practice Award from ACM)
129. * **Jinbo Bi**, Tao Xiong, Shipeng Yu, Murat Dundar, and Bharat Rao, An Improved Multi-task Learning Approach with Applications in Medical Diagnosis, *Proceedings of the 18th European Conference on Machine Learning (ECML)*, pp. 117-132, 2008. Acceptance Rate 19.8%
130. Vikas Raykar, Balaji Krishnapuram, **Jinbo Bi**, Murat Dundar, and Bharat Rao, Bayesian Multiple Instance Learning: Automatic Feature Selection and Inductive Transfer, *Proceedings of the 25th International Conference on Machine Learning (ICML)*, pp. 808-815, 2008. Acceptance Rate 27%
131. Jianming Liang and **Jinbo Bi**, Local Characteristic Features for Computer Aided Detection of Pulmonary Embolism in CT Angiography, *Proceedings of the Workshop on Pulmonary Image Analysis at Annual*

Conference on Medical Image Computing and Computer-Assisted Intervention (MICCAI-PIA), pp.1-9, 2008. Acceptance Rate 35%

132. Lucian Lita, Shipeng Yu, Stefan Niculescu and **Jinbo Bi**, Large Scale Diagnostic Code Classification for Medical Patient Records, *Proceedings of the 3rd International Joint Conference on Natural Language Processing (IJCNLP)*, pp.877-882, 2008. Acceptance Rate 28%
133. Bernard Ghanem, Jianming Liang, **Jinbo Bi**, Marcos Salganicoff, and Arun Krishnan, Reduction of Lymph Tissue False Positive in Pulmonary Embolism Detection, *Progress in Biomedical Optics and Imaging – Proceedings of SPIE*, 6915:1-9, 2008. Acceptance Rate 33%
134. Kazunori Okada, Senthil Periaswamy and **Jinbo Bi**, Stratified Regularity Measures with Jensen-Shannon Divergence, *Proceedings of the IEEE International Computer Vision and Pattern Recognition Workshops*, pp. 1-8, 2008. Acceptance Rate 27.9%
135. * Jianwu Xu, Shipeng Yu, **Jinbo Bi**, Lucian Lita, Stefan Niculescu, and Bharat Rao, Automatic Medical Coding of Patient Records via Weighted Ridge Regression, *Proceedings of the 6th International Conference on Machine Learning and Applications*, (ICMLA), pp. 260-265, 2007. Acceptance Rate 16%
136. Bharat Rao, **Jinbo Bi**, Glenn Fung, Marcos Salganicoff, Nancy Obuchowski, and David Naidich, LungCAD: A Clinically Approved, Machine Learning System for Lung Cancer Detection, *Proceedings of the 13th ACM International Conference on Knowledge Discovery and Data Mining*, (SIGKDD), pp. 1033-1037, 2007. Acceptance Rate 17.9%
137. * **Jinbo Bi** and Tao Xiong, A Mathematical Programming Formulation for Sparse Collaborative Computer Aided Diagnosis, *Proceedings of the 22nd International Conference on Artificial Intelligence*, (AAAI), pp. 522-527, 2007. Acceptance Rate 27.5%
138. Murat Dundar and **Jinbo Bi**, Joint Optimization of Cascaded Classifiers for Computer Aided Detection, *Proceedings of IEEE Computer Society Conference on Computer Vision and Pattern Recognition (CVPR)*, pp. 1-8, 2007. Acceptance Rate with honored oral presentation: 4.8%
139. * **Jinbo Bi** and Jianming Liang, Multiple Instance Learning of Pulmonary Embolism Detection with Geodesic Distance along Vascular Structure, *Proceedings of IEEE Computer Society Conference on Computer Vision and Pattern Recognition (CVPR)*, pp. 1-8, 2007. Acceptance Rate with oral presentation: 4.8%
140. Jianming Liang and **Jinbo Bi**, Computer Aided Detection of Pulmonary Embolism with Tobogganing and Multiple Instance Classification in CT Pulmonary Angiography, *Proceedings of the 20th International Conference on Information Processing in Medical Imaging (IPMI)*, pp. 630-641, 2007. Acceptance Rate 25%
141. Anna Jerebko, George Schmidt, Xiang Zhou, **Jinbo Bi**, Vikram Anand, Jun Liu, Ingo Schmueching and Arun Krishnan, Robust Parametric Modeling Approach Based on Domain Knowledge for Computer Aided Detection of Vertebrae Column Metastases in MRI, *Proceedings of the 20th International Conference on Information Processing in Medical Imaging (IPMI)*, pp. 713-724, 2007. Acceptance Rate 25%
142. * Tao Xiong, **Jinbo Bi**, Bharat Rao, and Vladimir Cherkassky, Probabilistic Joint Feature Selection for Multi-task Learning, *Proceedings of SIAM International Conference on Data Mining (SDM)*, pp. 69-76, 2006. Acceptance Rate 16%
143. Murat Dundar, Balaji Krishnapuram, **Jinbo Bi**, and Bharat Rao, Learning Classifiers When the Training Data is not IID, *Proceedings of the 20th International Joint Conference on Artificial Intelligence*, (IJCAI), pp. 756-761, 2006. Acceptance Rate 18%
144. Jieping Ye, Tao Xiong, Qi Li, Ravi Janardan, **Jinbo Bi**, Vladimir Cherkassky, and Chandra Kambhmettu, Efficient Model Selection for Regularized Linear Discriminant Analysis, *Proceedings of the ACM Fifteenth Conference on Information and Knowledge Management (CIKM)*, pp. 532-539, 2006. Acceptance Rate 15%

145. * *Matthew E. Otey*, **Jinbo Bi**, Sriram Krishnan, Bharat Rao, Jonathan Stoeckel, Alan Katz, Jing Han, and Srinivasan Parthasarathy, Automatic View Recognition for Cardiac Ultrasound Images, *Proceedings of the 1st International Workshop on Computer Vision for Intravascular and Intracardiac Imaging at Annual Conference on Medical Image Computing and Computer-Assisted Intervention*, (MICCAI-CVII), pp. 1-8, 2006. Acceptance Rate 28%
146. * **Jinbo Bi**, Senthil Periaswamy, Kazunori Okada, Toshiro Kubota, Glenn Fung, Marcos Salganicoff, and Bharat Rao, Computer Aided Detection via Asymmetric Cascade of Sparse Hyperplane Classifiers, *Proceedings of the ACM International Conference on Knowledge Discovery and Data Mining*, (SIGKDD), pp. 837-844, 2006. Acceptance Rate 10.9%
147. Kai Yu, **Jinbo Bi**, Volker Tresp, Active Learning via Transductive Experimental Design, *Proceedings of the 23rd International Conference on Machine Learning*, (ICML), pp. 1081-1088, 2006. Acceptance Rate 20%
148. * **Jinbo Bi**, Glenn Fung, Murat Dundar, Bharat Rao, Semi-supervised Mixture of Kernels via LPBoost Methods, *Proceedings of the Fifth IEEE International Conference on Data Mining*, (ICDM), pp. 569-572, 2005. Acceptance Rate 13.8%
149. Matthias Wolf, Sriram Krishnan, Marcos Salganicoff, **Jinbo Bi**, Mehmet Dundar, Glenn Fung, Jonathan. Stoeckel, Senthil Periaswamy, Hong Shen, Peter Herzog, and David P. Naidich, CAD Performance Analysis for Pulmonary Nodule Detection on Thin-slice MDCT Scans, *Proceedings of CARS 2005 Computer Assisted Radiology and Surgery* (CARS), pp.1104-1108, 2005. Acceptance Rate 23.5%
150. * **Jinbo Bi**, Yixin Chen, and James Wang, A Sparse Support Vector Machine Approach to Region-Based Image Categorization, *Proceedings of IEEE International Conference on Computer Vision and Pattern Recognition* (CVPR), pp. 1121-1128, 2005. Acceptance Rate 22%
151. Murat Dundar, Glenn Fung, **Jinbo Bi**, Sathyakama Sandilya, and R. Bharat Rao, Sparse Fisher Discriminant Analysis for Computer Aided Detection, *Proceedings of SIAM International Conference on Data Mining* (SDM), pp. 476-479, 2005. Acceptance Rate 18%
152. Glenn Fung, *Maleeha Qazi*, Sriram Krishnan, **Jinbo Bi**, Bharat Rao, and Alan Katz, Sparse Classifiers for Automated Heartwall Motion Abnormality Detection, *Proceedings of the 4th International Conference on Machine Learning and Applications* (ICMLA), pp. 194-200, 2005. Acceptance Rate: 46%
153. Yixin Chen and **Jinbo Bi**, Clustering by Maximizing Sum-of-Squared Separation Distance, *Proceedings of SIAM Data Mining Workshop on Clustering High Dimensional Data and its Applications*, pp. 1-12, 2005. Acceptance Rate 35%
154. * **Jinbo Bi** and Tong Zhang, Support Vector Classification with Input Data Uncertainty, *Advances in Neural Information Processing Systems*, (NIPS) Vol. 17, pp. 161-168, 2004. Acceptance Rate 30%
155. * **Jinbo Bi**, Tong Zhang and Kristin P. Bennett, Column-Generation Boosting Methods for Mixture of Kernels, *Proceedings of ACM International Conference on Knowledge Discovery and Data Mining*, (SIGKDD) pp. 521-526, 2004. Acceptance Rate 12%
156. Glenn Fung, Murat Dundar, **Jinbo Bi** and Bharat Rao, A Fast Iterative Algorithm for Fisher Discriminant using Heterogeneous Kernels, *Proceedings of the 21st International Conference on Machine Learning* (ICML), pp. 313-320, 2004. Acceptance Rate 32%
157. **Jinbo Bi** and Kristin P. Bennett, Regression Error Characteristic Curves, *Proceedings of the 20th International Conference on Machine Learning* (ICML), pp. 43-50, AAAI Press, 2003. Acceptance Rate 32%
158. * **Jinbo Bi**, Multi-Objective Programming in SVMs, *Proceedings of the 20th International Conference on Machine Learning* (ICML), pp. 35-42, AAAI Press, 2003, Acceptance Rate 32%
159. **Jinbo Bi** and Vladimir N. Vapnik, Learning with Rigorous Support Vector Machines, *Proceedings of the 16th Annual Conference on Learning Theory, Springer Lecture Notes in Computer Science 2777* (COLT), pp. 243-257, 2003, Acceptance Rate 53%

160. **Jinbo Bi** and Kristin P. Bennett, Duality, Geometry, and Support Vector Regression, *Advances in Neural Information Processing Systems* (NIPS), Vol. 14, pp. 593-600, 2002, Acceptance Rate 30%
161. Cang-Pu Wu, Huiqi Gao, and **Jinbo Bi**, Reinforcement Learning with Temporal Differences for Group Preventive Replacement Problems, Proceedings of the International Federation of Automatic Control World Congress (IFAC), pp.1-7, 1999, Acceptance Rate 41.6%

Technical Reports

162. *Jianming Liang and **Jinbo Bi**, Computer Aided Detection of Pulmonary Embolism in CT Pulmonary Angiography, A Write Paper at Siemens Medical Solutions, 2008.
163. **Jinbo Bi** and Kristin P. Bennett, A Generic Nearest Point Algorithm for Solving Support Vector Machines, Technical Report of the Mathematical Department, Rensselaer Polytechnic Institute, 2002.
164. Erin J. Bredensteiner, **Jinbo Bi** and Kristin P. Bennett, Duality in Data Mining, Technical Report of the Mathematical Department, Rensselaer Polytechnic Institute, 2001.

Clinical Abstracts and Research Presentations

165. * Machine Learning for Identifying Alcohol Misuse Biotypes from Multi-Dimensional Data, **Jinbo Bi**, an invited talk at *American Psychiatric Association Annual Conference*, invited by NIH program officials Susan Wright, May and June 2022.
166. * Dimension Reduction and Cluster Analysis of Mouse Microbiome Data for Understanding Heterogeneity of Addiction, Rigel Mahmood, Tan Zhu, Dong-binh Tran, George Weinstock, Jason Bubier, Elissa J. Chesler, **Jinbo Bi**, Genetics and Epigenetics Cross-Cutting Research Team Meeting (GECRT), April 2022.
167. * Damage Detection from Aerial Images, Jinbo Bi, presentation to Travelers Insurance, March 2022.
168. * Artificial Intelligence for Drug Discovery, Jinbo Bi, presentation to CT State Research Exchange with Korean Industry, 2021
169. * Inferring Phenotypes from Substance Use via Collaborative Matrix Completion, *Jin Lu, Jiangwen Sun, Xinyu Wang*, Henry R Kranzler, Joel Gelernter, and **Jinbo Bi**, an abstract selected by and will present at the NIH/NIDA Genetic Consortium Annual Meeting, Jan 2019.
170. Restoration of Neural Activity Supporting Working Memory in Schizophrenia by Computer-Based cognitive Remediation Training, Jason Johannesen, **Jinbo Bi**, Joshua Kenney, Chi-Ming Chen, a poster presentation and an abstract at the 32nd Annual Meeting of the Society for Research in Psychopathology, Indianapolis, IN, Sept. 2018.
171. Classifying Neurological Gait Disorders using Scalable and Integrative Learning of Biosensing Data, Ioannis Papavasileiou, Wenlong Zhang, **Jinbo Bi**, and Song Hang, an abstract peer-reviewed and presented at the 40th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), July 2018.
172. * A Genome-wide Association Analysis with Cocaine Use Disorder Accounting for Both Phenotypic Heterogeneity and Gene-Environment Interplay, *Jiangwen Sun*, Henry R Kranzler, Joel Gelernter, and **Jinbo Bi**, an abstract selected by and presented at the NIH/NIDA Genetic Consortium Annual Meeting, Jan 2018.
173. * Collaborative Phenotype Inference from Comorbid Substance Use Disorders and Genotypes, *Jin Lu, Jiangwen Sun, Xinyu Wang*, Henry R Kranzler, Joel Gelernter, and **Jinbo Bi**, an abstract selected by and presented at the NIH/NIDA Genetic Consortium Annual Meeting, Jan 2018.
174. View imputation via Generative Adversarial Networks, Chao Shang, and Jinbo Bi, an invited talk presented at Alibaba Technology Inc., Dec. 2017

175. 1-norm Support Vector Machine on Single-trial EEG and ECG Data to Identify Neural Oscillatory Features in the Ketamine Model for Schizophrenia: Using Your head and Following Your Heart. Xiao Yang, **Jinbo Bi**, Jason Johannesen, and Chi-Ming Chen, selected as an oral presentation by a peer-review panel on Nanosymposium 363, Aug. 2017.
176. Gait-based Continuous Authentication Using Multimodal Learning, Ioannis Papavasileiou, *Savanna Smith*, **Jinbo Bi**, and Song Han, a poster presented at the 2nd IEEE/ACM Conference on Connected Health: Applications, Systems and Engineering Technologies (CHASE), July, 2017.
177. * Machine Learning to Identify Highly Heritable Component of Substance Use Disorders, **Jinbo Bi**, *Jiangwen Sun*, and Henry R Kranzler, an abstract selected by and presented at the NIH/NIDA Genetic Consortium Annual Meeting, Dec. 2016.
178. * Multi-view Singular Value Decomposition for Disease Subtyping and Genetic Associations, *Jiangwen Sun*, Henry R Kranzler, and **Jinbo Bi**, an abstract selected by and presented at the NIH/NIDA Genetic Consortium Annual Meeting, Dec. 2016.
179. Prediction of Clinical Depression using Smartphone Sensory Data, Jayesh Kamath, Asma Ahmad Farhan, Chaoqun Yue, Reynaldo Morillo, Shweta Ware, *Jin Lu*, **Jinbo Bi**, Alexander Russell, Athanasios Bamis, and Bing Wang, presented at the Annual Meeting of American College of Neuropsychopharmacology (ACNP), Dec, 2016.
180. * Machine Learning for Disease Classification Analysis, **Jinbo Bi**, invited talk at the NIH/NIAAA/NIDA Advising Committee on Biostatistics, Sept 2016.
181. * A Tensor-based Machine Classification Approach to EEG Feature Detection: Examination of Working Memory Network Dysfunction in Schizophrenia, **Jinbo Bi**, Chi-Ming Chen, *Tingyang Xu*, Joshua Kenney, and Jason Johannesen, presented at the 15th Neural Computation and Psychology Workshop, August 8th, 2016.
182. * A High Performance Computing Platform to Whole Genome Prediction, **Jinbo Bi**, an invited poster presentation at the NSF BigData PI Meeting, April 2016.
183. * Machine Learning to Identify Highly Heritable Components of Substance Use Disorders, **Jinbo Bi**, *Jiangwen Sun*, and Henry R. Kranzler, an abstract (with an oral presentation) published at the International Behavioral and Neural Genetics Society Annual Meeting (also invited by an NIH research program), May 13th, 2016.
184. Brain-Computer Interface (BCI) Enabled Memory Training for Schizophrenia, Chi-Ming Chen, **Jinbo Bi**, *Ruhua Jiang*, Joshua G. Kenney, and Jason K. Johannesen, a poster presented at Cognitive Remediation in Psychiatry, June 2015.
185. Application of Machine Learning to Identify Features of EEG Associated with Working Memory Performance in Healthy Adults and Schizophrenia, Chi-Ming Chen, Ruhua Jiang, Joshua Kenney, **Jinbo Bi**, and Jason Johannesen, an abstract publication and a talk presented at Society for Neuroscience Annual Meeting, Oct. 2014.
186. Multi-view Analysis to Enhancing Genetic Analysis of Plant Phenotypes, **Jinbo Bi**, an invited talk presented at the Chinese Academy of Agricultural Sciences, Beijing, China, July, 2014.
187. Solving Ambiguity in Medical Data Classification, **Jinbo Bi**, an invited talk presented at DaLian University of Technology, School of Information Systems, July 2013.
188. Solving Ambiguity in Medical Data Classification via Multiple Instance Learning, **Jinbo Bi**, an invited talk presented at Xi'an JiaoTong University Institute of Mathematics, Xi'an, China, 2013.
189. Statistical Image Analysis for Computerized Healthcare Revolution, **Jinbo Bi**, an invited talk presented at Xi'an Jiao Tong University School of Medicine, Xi'an, China, 2013.
190. Quantitative Subtyping to Enhance Genetic Analysis of Complex Phenotypes, **Jinbo Bi**, an invited talk presented at the Bovine Functional Genomics Laboratory, US Department of Agriculture, 2013.

191. Statistical Machine Learning Meets Challenges in Computerized Healthcare Revolution, **Jinbo Bi**, an invited talk presented at the Department of Radiology and Imaging Sciences, National Institutes of Health, 2013.
192. A Web-based Clinical Decision Support System for Asthma, **Jinbo Bi**, an invited talk presented at IBM Watson Research Center, 2012.
193. Computer Aided Diagnosis in Healthcare Revolution, **Jinbo Bi**, an invited talk presented at Pfizer Global Research, 2011.
194. Solving Ambiguity in Medical Data Classification via Mathematical Programming and Modeling, **Jinbo Bi**, an invited talk presented at Chinese Academy of Science, 2010.
195. Statistical Data Mining Meets Challenges in Computerized Healthcare Revolution, **Jinbo Bi**, an invited talk presented at IBM Watson Research Center, 2011.
196. An Adaptive, Knowledge-Driven Medical Image Search Engine for Interactive Diffuse Parenchymal Lung Disease Quantification, *Yimo Tao*, Xiang Zhou, **Jinbo Bi**, Anna Jerebko, Matthias Wolf, Marcos Salganicoff and Arun Krishnan, *Proceedings of SPIE medical imaging* with an oral presentation, 2009.
197. MetricBoost: AdaBoosting Positive Semi-definite Matrices for Metric Learning, **Jinbo Bi**, an abstract publication and an invited talk at *The 20th International Symposium on Mathematical Programming*, Chicago, IL, 2009.
198. Assessment of Computer-aided Nodule Detection (CAD) Algorithm on Pathology Proved CT Data Sets, Sangmin Park, Tae-jung Kim, Vikas Raykar, Vikram Anand, Anna Jerebko, **Jinbo Bi**, Maneesh Dewan and Marcos Salganicoff, an abstract and a talk presented at *Radiologist Society of North America (RSNA)*, 2008.
199. Computer-aided Detection of Pulmonary Nodules on CT: Evaluation of a New Prototype for Detection of Ground-glass and Part-Solid Nodules, Myrna Godoy, Tae Jung Kim, Jane Ko, Charles Florin, Anna Jerebko, David Naidich, Sangmin Park, Ioannis Vlahos, **Jinbo Bi** and Marcos Salganicoff, an abstract and a talk presented at *Radiologist Society of North America (RSNA)*, 2008.
200. Reduction of Lymph Tissue False Positives in Pulmonary Embolism Detection, Bernard Ghanem, Jianming Liang, **Jinbo Bi**, Marcos Salganicoff and Arun Krishnan, *Proceedings of SPIE Medical Imaging* with an oral presentation, 2008.
201. Training a CAD Classifier with Correlated Data, Murat Dundar, Balaji Krishnapuram, Matthias Wolf, Sarang Lakare, Locu Bogoni, **Jinbo Bi** and Bharat Rao, *Proceedings of SPIE Medical Imaging* with an oral presentation, 2008.
202. Reducing a Biomarkers List via Mathematical Programming: Application to Gene Signatures to Detect Time-dependent Hypoxia in Cancer, Glenn Fung, Renaud Seigneuric, Sriram Krishnan, Bharat Rao, Brad Wouters, Philippe Lambin, **Jinbo Bi**, a talk presented in Special Session on Machine Learning Approaches to Medical Diagnosis and Health Care at INFORMS 2007 Annual Meeting, 2007.
203. Assessment of Computer-aided Lung Nodules Detection Algorithm on CT Data Sets Acquired Under Imaging Database Resources Initiative, Anna Jerebko, **Jinbo Bi**, Matthias Wolf, Senthil Periaswamy, Jianming Liang and Sanming Park, an abstract at *Radiological Society of North America (RSNA)* with an oral presentation, 2007.
204. Computer-aided Detection of Skeletal Metastases in MRI STIR Imaging of the Spine, Anna Jerebko, George Schmidt, Xiang Zhou, **Jinbo Bi**, Vikram Anand, Jun Liu, Smith Schoenberg, Ingo Schmuecking, Bob Kiefer and Arun Krishnan, a talk presented at *International Society for Magnetic Resonance in Medicine*, 2007.
205. CAD Performance Analysis for Pulmonary Nodule Detection on Thin-slice MDCT Scans, Matthias Wolf, Arun Krishnan, Marcos Salganicoff, **Jinbo Bi**, Murat Dundar, Glenn Fung, Jonathon Stoeckel, Senthil

- Periaswamy, Hong Shen, Peter Herzog and David Naidich, a talk presented at *Computer Assisted Radiology and Surgery (CARS)*, 2005.
206. Clinical Evaluation of a Novel Automatic Real-time Myocardial Tracking and Wall Motion Scoring Algorithm for Echocardiography, Alan Katz, Sriram Krishnan, Xiang Zhou, Bogdan Georgescu, Dorin Comaniciu, **Jinbo Bi**, Glenn Fung, and Jianming Liang, a talk presented at *American College of Cardiology (ACC)*, 2005.
 207. Uncertainty Problems in Classification with Ultrasound Images, **Jinbo Bi**, an invited talk presented in the Machine-Learning Group led by Dr. Robert Schapire in Princeton University, October 29th, 2004.
 208. In Silico Screening for the hERG Potassium Channel Affinity, Minghu Song, **Jinbo Bi**, Curt M. Breneman, Kristin P. Bennett, a talk presented at the *228th American Chemical Society Conference*, Philadelphia, 2004.
 209. Developing in silico Carcinogenicity Classification Model Based on the Kernel Combination Approach, Minghu Song, **Jinbo Bi**, Kristin P. Bennett, Curt M. Breneman, a talk presented at *ADMET-1 Conference*, San Diego, 2004.
 210. Support Vector Machines – Regression, Classification and some Applications, **Jinbo Bi**, an invited talk presented at Canadian Imperial Bank of Commerce, Customer Behaviour Analytics Group, Toronto, Canada, 2003.
 211. A Brief Introduction to Learning Theory and Learning Algorithms, **Jinbo Bi**, a seminar talk presented at the Department of Mathematics, Rensselaer Polytechnic Institute, 2003.
 212. Prediction of Protein Retention Times in Anion-exchange Chromatography System using Support Vector Regression, Minghu Song, Curt M. Breneman, Nagamani Sukumar, Kristin P. Bennett, **Jinbo Bi**, Steve Cramer and Nihal Tugcu, a talk presented at the *224th American Chemical Society Conference*, Boston, 2002.
 213. Rigorous Support Vector Machine and Feature Selection, **Jinbo Bi** and Vladimir N. Vapnik, a talk presented at NEC Research Institute, Inc., Princeton, NJ, 2002.
 214. QSPR Model Generation and Validation for Virtual High Throughput Screening, Minghu Song, Curt M. Breneman, Nagamani Sukumar, **Jinbo Bi**, Kristin P. Bennett, Steve Cramer, a poster presented at *Gordon Research Conference on Combinatorial & High Throughput Materials Science*, Kimball Union Academy, 2002.
 215. Caco-2 Permeability Modeling: Feature Selection via Sparse Support Vector Machines.” Curt M. Breneman, Kristin P. Bennett, **Jinbo Bi**, Mark J. Embrechts, M. Song, a talk presented at the *223rd American Chemical Society Conference*, Orlando, April, 2002.
 216. Krylov Subspace Methods: A Technique for Partial Least Squares Regression”, **Jinbo Bi**, a talk presented at “*Readings in Optimization*” Seminar, Rensselaer Polytechnic Institute, 2001.
 217. Displacer Efficacy prediction by Electronic Shape/Property-Encode descriptors, Minghu Song, **Jinbo Bi**, Larry Ladiwala, Wei Deng, Nagamani Sukumar, Michael Sundling, Steve Cramer, Curt M. Breneman, a talk presented at *Albany Biotechnology Conference*, 2001.
 218. Data Mining in Pharmaceutical Data Analysis, **Jinbo Bi**, a student poster presented at *the 18th International Conference on Machine Learning*, Williams College, MA, 2001.
 219. SVM, GAFEAT-NN, GA-PLS Modeling of Caco-2 Permeability using Electron Density based Descriptors, Minghu Song, **Jinbo Bi**, Musin Ozdemir, Nagamani Sukumar, Mark J. Embrechts, Kristin Bennett, Curt M. Breneman, a talk presented at the *222nd American Chemical Society Conference*, Chicago, 2001.

- **March 2020**, Appointed fellow of Connecticut Academy of Science and Engineering, <https://today.uconn.edu/2020/03/uconn-president-nine-faculty-inducted-connecticut-academy-science-engineering/>
- **March 2019**, Winner of the 15th Annual Women of Innovation, <https://www.ct.org/the-connecticut-technology-council-announces-the-winners-of-the-15th-annual-women-of-innovation/>
- **December 2017**, Best Reviewer Award, Advances in Neural Information Processing Systems, <https://nips.cc/Conferences/2017/Awards>
- **March 2017**, Connecticut Technology Council, the 2017 Women of Innovation Finalist in the Category of Research Innovation and Leadership, <https://www.ct.org/ctc-2017-women-of-innovation-finalists/>
- **April 2016**, “Translating DNA Information to Help Predict Risk of Disease”, UConn CSE Department Spotlight, <http://www.cse.uconn.edu/news/front-page/translating-dna-information-to-help-predict-risk-of-disease/>
- **June 2015**, “Understanding Addiction: A Genetic Approach to Clinical Symptoms”, UConn Today, <http://today.uconn.edu/2015/06/understanding-addiction-a-genetic-approach-to-clinical-symptoms/>
- **April 2015**, “CSE Research on Drug Abuse Attracts a \$1.2M NIH Grant”, UConn CSE Department Spotlight, <http://www.cse.uconn.edu/news/front-page/professor-jinbo-bi-receives-nsf-grant-for-phenotype-refinement-research/>
- **March 2015**, “Smartphone app could change how depression is diagnosed”, UConn Today, <http://today.uconn.edu/2015/03/smartphone-app-could-change-how-depression-is-diagnosed/>

THESIS ADVISING AND POSTDOC MENTORING

AS MAJOR ADVISOR:

Current and Past Postdoctoral Fellows (as major advisor)

- Jiangwen Sun (2015-2018) Research on quantitative subtyping of drug dependence with consideration of co-occurring disorders (supported by NIH 1R01DA037349).
 - **Current position:** Assistant Professor at the Old Dominion University.
- Guoqing Chao (2015-2017) Research on multi-view subspace clustering with incomplete data and views, and its application to disease classification and precision treatment (supported by NSF CCF-1514357 and NIH 1R01DA037349)
 - **Current position:** Assistant Professor at the Harbin Institute of Technology
- Soumitra Pal (2015-2017) Research on parallel and distributed machine learning algorithms and their evaluation in modern high performance computing platforms and their applications to whole genome prediction (supported by NSF CCF-1514357).
 - **Current position:** Scientist at the National Center for Biotechnology Information (NCBI) at NIH
- Ko-Shin Chen (2017-2018) Research on multi-modal modeling and tensor regression, and their efficient algorithms using parallel/distributed computing (supported by NSF DBI-1356655 and IIS-1718738).
 - **Current position:** Staff Scientist at the Department of Health, New York State
- Chunjiang Zhu (2018- 2020) Research on Latent Class Discovery and Prediction and Parallel/Distributed Systems (supported by NSF IIS-1718738)
 - **Current position:** Assistant Professor at the University of North Carolina at Greensboro
- Zhenxiang Gao (2019- 2021) Research on Artificial Intelligence for Drug Discovery and Development (supported by NSF DBI-1356655)
 - **Current position:** Research Scientist at the Case Western Reserve University
- Xuetao Shi (2021- present) Research on Artificial Intelligence for Drug Discovery and Chemical Reaction Learning (supported by NIH K02-DA043063)

Current and Past Ph.D. Students (as major advisor)

- Javon (Jiangwen) Sun (2010-2015) Ph.D. Dissertation topic: Machine learning approaches for phenotype refinement to improve genetic association analysis
 - **Current position:** Assistant Professor at Old Dominion University
- Xin Wang (2011-2016) Ph.D. Dissertation topic: Imprecisely-supervised learning (e.g., learning from crowdsourced labels and learning with multiple related tasks)
 - **Current position:** Scientist at IBM AI/Data Science Center at Boston
- Tingyang Xu (2011-2017) Ph.D. Dissertation topic: Multi-scale analysis of human behaviors and related machine learning algorithms
 - **Current position:** Research scientist at Tencent Technologies AI Laboratory at Shenzhen
- Jin Lu (2014-2019) Ph.D. Dissertation topic: Provable machine learning methods
 - **Current position:** Assistant Professor at the University of Michigan-Dearborn
- Chao Shang (2016-2020) Dissertation topic: End-to-End Structure-Aware Convolutional Networks on Graphs (supported by NSF DBI-1356655 and IIS-1320586)
 - **Current position:** Scientist at Amazon, WA
- Guannan Liang (2015-2021) Dissertation topic: Efficient and Privacy-preserving Algorithms for Nonconvex Sparse Learning (supported by NIH 1R01DA037349)
 - **Current position:** AI Scientist at Amazon, CA
- Qianqian Tong (2016-2022) Dissertation topic: Parallel and Federated Algorithms for Large-scale Machine Learning Problems (supported by NSF CCF-1514357)
 - **Current position:** Assistant Professor at the University of North Carolina
- Aaron Palmer (2015-) Dissertation topic: Probabilistic machine learning approaches (supported by VA I21-RX001731 and NSF-1447711)
- Tan Zhu (2018-) Tentative Dissertation topic: Differentiating brain changes for mental disorders such as addiction or depression (supported by NSF CCF-1514357)
- Qinqing Liu (2018-) Tentative Dissertation topic: Spatiotemporal deep learning with applications in complex data
- Fei Dou (2018-) Tentative Research topic: Deep learning for damage detection from hurricane using aerial images
- Xinyu Wang (2019-) Tentative Research topic: Improving diversity of generated texts from language models
- Rigel Mahmood (2021-) Tentative Research topic: Interpretable deep learning methods for biomedical data analysis
- Blake Gaines (2022-) Tentative Research topic: Representation learning and sparsification for heterogeneous graphs
- Wariri Faith (2022-) Tentative Research topic: Understanding neural basis of mental disorders such as depression and addiction

Current and Past Master Graduate Students (as their major advisor)

- Arun Abraham (2010-2012) M.S. student, research on computerized clinical decision support and translating successful disease management into electronic medical records (EMR)
- Yu Wu (2010-2012) M.S. student, research on longitudinal analysis of college alcohol use via new machine learning algorithms
- Ahmet Can Mingir (2010-2012) M.S. student, research on effective nursing informatics platform: a web-based system for home care of pre-mature babies
- Jingyuan Zhang (2012 – 2014) M.S. student, research on phenotype refinement of alcohol dependence
- Aditya Dhakal (2013 – 2014) M.S. student, research on chip heritability estimation and estimating the chip heritability of cocaine dependence
- Jieyao Gao (2015-2017), M.S. student, research topic: Imputing genetic markers for GWAS using IMPUTE2
 - **Current position:** Software Engineer at Facebook
- Huizhong Gao (2015-2018) M.S. student, research topic: Predictive modeling of smartphone sensor data for depression screening (supported by NSF IIS-1407205)
 - **Current position:** Researcher at Amazon, CA

Current and Past Undergraduate Research Advisees (REU and honors thesis as major advisor)

- Joanna Morgan (2010-2011) Undergraduate, research on creating clinical decision support systems for use in electronic medical records (using GE Centricity EMR system)
- Shaolong Cao (2010-2011) Undergraduate, research on building generalized estimating equations and generalized linear models for human behaviors
- Yuke Yang (2010-2011) Undergraduate, research on quantitative subtyping of drug dependence and co-occurring disorders
- Michael Zuba (2010-2011) Undergraduate/graduate, research on support vector machine for college drinking risk factor identification with a joint publication
- Glenn Ortiz (2011-2012) Undergraduate, research on translating successful paper-based disease management program –EasyBreathing- into electronic medical records (using GE Centricity EMR system)
- Ricky Jia (2012-2012) Undergraduate, research on the web system design for a web-based clinical decision support system
- Robert E. Kirschner (2013-2014) Undergraduate (REU), research on building a hybrid software system for toxicity prediction in drug discovery
- Kyle Reing (2014-2015) Undergraduate (REU), research on identifying the most relevant EEG features for successful memory function
- Huayi Ji (2015-2016) Research topic: Webpage design for computational health informatics lab
- Kimberly Sayre (2015-2016) Research topic: Drug combination prediction challenge using machine learning package Scikit-learn
- Joseph Muller (2015-2016) Research topic: Understanding neural dynamics of memory encoding (supported by NSF IIS-1320586 REU)
- Dillon McManus (2016- 2016) Research topic: Building pipeline C++ packages for medical genomics (supported by NSF DBI-1356655 REU)
- Nicholas Choma (2016- 2017, 2018) Research topic: Recurrent neural networks for brain signal analysis (supported by NSF IIS-1320586 REU), recommended him to NYU as a graduate student
- John Wohl (2018-2019) Research topic: Artificial intelligence for drug discovery – protein-ligand interactions (supported by NIH K02-DA043063)
- Xinyu Wang (2016, 2017, 2018) Research topic: Matrix and tensor completion using stochastic and parallel algorithms (supported by NSF DBI-1356655 REU), already published joint work
- Daniel Ruskin (2016, 2017, 2018) Research topic: A pipeline based on C++ for heritability analysis and heritable component analysis (supported by NSF DBI-1356655 REU)
- Param Bidja (2017, 2018) Research topic: A deep learning model for recognizing flowers from smartphone pictures
- Srinivas Setty (2018) Research topic: Heritable component analysis for multivariate phenotypes
- Sam (Xinyuan) Li (2017, 2018) Research topic: Graph convolutional neural networks and related methods
- Christopher Dipietro (2017-) Research topic: Artificial intelligence for drug discovery
- Savanna Smith (2016-) Research topic: Biometric authentication using machine learning analysis of biosensor gait parameters
- Fatir Qureshi (2015, 2017, 2018) Research topic: Quantifying feed efficiency of dairy cattle and genomewide association for feed efficiency, and heritable component analysis (supported by NSF DBI-1356655 REU)
- Chloe Becquey (2020, 2021) Research topic: Multi-arm bandits and fast, efficient similarity search with large-scale database of molecules (supported by NSF CCF-1514357)
- Pranav Tavildar (2020) Research topic: nonlinear dimension reduction (e.g., tSNE and UMAP) (supported by NSF CCF-1514357)
- Matthew Marek (2021) Research topic: Multi-view cluster analysis to understand neurological basis of addiction (supported by NSF CCF-1514357)
- Ryan Lai (2021) Research topic: Multi-arm bandits for feature selection with directed sampling (supported by NSF CCF-1514357)
- Blake Gaines (2020, 2021) Research topic: Learning representations of knowledge graphs of chemical reaction databases (supported by NSF CCF-1514357)

- Paribesh Upreti (2021) Research topic: Covid-19 Xray image classification using resnet50 CNN model on 2 days of data
- Cameron Cianci (2022) Research topic: Damage segmentation and classification from aerial images after storms (supported by Travelers grant)
- Yifan Shan (2022) Research topic: Evaluating aerial images with respect to the post-storm damages (supported by Travelers grant)

Current and Past High School Research Advisees

- Niteesh Kalangi, Glastonbury High School, CT – Project: machine learning analysis of EEG signals to predict working memory performance in healthy and schizophrenic adults, 2021-2022
- Daniel Zhou, Edwin O Smith High School, CT
- Riley Francis, Edwin O Smith High School, CT
- Andrew Li, Edwin O Smith High School, CT
- Anthony Song, Edwin O Smith High School, CT
- Kanishk Tihaya, Edwin O Smith High School, CT
- Anant Srinivasan, Wilton High School, CT
- The above students performed team project on autonomous driving with F1Tenth model cars, 2021-2022

AS ASSOCIATE ADVISOR:

- **Current and Past Graduate Students (as an associate advisor)**
 - Shanglin Zhou, Ph.D. student, 2015 -
 - Chaoqun Yue, Ph.D. student, graduated in 2019
 - Ioannis Papavasileiou, Ph.D. student, graduated in 2018
 - Hoang Tham, Ph.D. student, graduated in 2018
 - Yusuf Albayram, Ph.D. student, graduated in 2016
 - Yousra Almathami, Ph.D. student, graduated in 2017
 - Asma Ahmad Farhan, Ph.D. student, graduated in 2016
 - Sudipta Pathak, Ph.D. student, graduated in 2017
 - Aljoharah Algwaiz, Ph.D. student, graduated in 2017
 - Dandi Chen, M.S. student, graduated in 2016
 - Jingyuan Chou, M.S. student, graduated in 2016
 - Ruofan Jin, Ph.D. student, graduated in 2015, Performance measurement and optimization in LTE networks
 - Aljoharah Algwaiz, Ph.D. student, Analyzing DNA sequence data using machine learning techniques
 - Yousra Almathami, Ph.D. student, Probabilistic methods for controlled airspace infringement tools
 - Mitko Mateev, M.S. student, graduated in 2016
 - Jingwen Pei, M.S. student, graduated in 2018
 - Ruhua Jiang, M.S. student, graduated in 2015
 - Anubhav Mathur, M.S. student, graduated in 2015
 - Alberto De la Rosa Algarin, Ph.D. student, graduated in 2014
 - Mai Hamdalla, Ph.D. student, graduated in 2014
 - Chih Lee, Ph.D. student, graduated in 2013
 - Ahmed Ebaid Mihdhir, Ph.D. student, graduated in 2013
 - Jiayin Wang, Ph.D. student, graduated in 2013
 - Hieu Dinh, Ph.D. student, graduated in 2013
 - Hesham Alhumyani, M.S. student, graduated in 2013
 - Ahmet Can Mingir, M.S. student, graduated in 2012
 - Vamsi Kundeti, Ph.D. student, graduated in 2011
 - Dolly Sharma, Ph.D. student, graduated in 2010
- **Supervised research associates and summer interns at Siemens Medical Solutions**

- Dijia Wu (2009) understanding semantic characteristics of nodules from CT images
- Yimo Tao (2008, 2009) multi-class and metric learning for DPLD,
- Dijia Wu (2008) cascaded multiple instance learning for LungCAD,
- Guido Leisker (2008) automatic assignment of diagnostic codes to patient records via classification,
- Jianwu Xu (2007) automatic assignment of diagnostic coded to patient records through NLP,
- Tao Xiong (2006) LungCAD multi-lesion detection via multi-task learning,
- Ya Xue (2005) ColonCAD classification of identified polyp candidates to prune false positives,
- Maleeha Qazi (2004, 2005) automtatic heart motion analysis,
- Matt E. Otey (2004) cardiac view analysis of echocardiography images,

TEACHING

The Student Evaluation of Teaching (SET) scores are provided below. SoE used a 10-point system from 2010 to 2012, and a 5-point system starting 2013. Of 13 lecture-based courses taught so far, 9 were rated exceeding the departmental mean, and 2 were equal to the departmental mean.

Lecture-based courses

- **Spring 2023**, CSE5820 Machine Learning (graduate course covering Reinforcement Learning, enrollment = 29, SET score = 4.5, **exceeding departmental mean 4.3**)
- **Spring 2022**, CSE5820 Machine Learning (graduate course covering Reinforcement Learning, enrollment = 30, SET score = 4.5, **exceeding departmental mean 4.3**)
- **Spring 2019**, CSE5820 Machine Learning (graduate course, enrollment = 30, SET score = 3.7)
- **Spring 2018**, CSE5820 Machine Learning (graduate course, enrollment = 39, SET score = 4.0)
- **Spring 2017**, CSE5820 Machine Learning (graduate course, enrollment = 30, SET score = 4.0)
- **Spring 2016**, CSE4705 Artificial Intelligence (undergraduate course, enrollment = 68, SET score = 4.0)
- **Spring 2015**, CSE4705 Artificial Intelligence (undergraduate course, enrollment = 64, SET score = 3.0)
- **Fall 2014**, CSE2500 Introduction to Discrete Systems (undergraduate course, enrollment = 44, SET score = 4.0, **exceeds departmental mean 3.2**)
- **Fall 2014**, CSE5820 Machine Learning (graduate and senior undergraduate course, enrollment = 20, SET score = 4.0)
- **Spring 2014**, CSE2500 Introduction to Discrete Systems (undergraduate course, enrollment = 56, SET score = 4.0, **exceeds departmental mean 3.2**)
- **Fall 2013**, CSE5820 Machine Learning (graduate and senior undergraduate course, enrollment = 25, SET score = 4.1, **exceeds departmental mean 4.0**)
- **Fall 2013**, CSE3802/ECE3431 Numerical Methods (cross-department undergraduate course, enrollment = 34, SET score = 3.0, **exceeds departmental mean 2.9**)
- **Spring 2013**, CSE5095/CSE4095 Machine Learning (special topic course for graduates and senior undergraduates, enrollment = 22, SET score = 5.0, **exceeds departmental mean 4.5**)
- **Fall 2012**, CSE2500 Introduction to Discrete Systems (undergraduate course, enrollment = 63, SET score = 9.0, **exceeds departmental mean 8.3**)
- **Fall 2012**, CSE5095 Machine Learning in Biomedical Informatics (special topic courses for graduates, enrollment = 26, SET score = 9.0, equal to departmental mean)
- **Spring 2012**, CSE2500 Introduction to Discrete Systems (undergraduate course, enrollment = 83, SET score = 8.4, **exceeds departmental mean 7.9**)
- **Fall 2011**, CSE3802/ECE3431 Numerical Methods (cross-department undergraduate course, enrollment = 25, SET score = 8.2, **exceeds departmental mean 8.0**)
- **Spring 2011**, CSE2500 Introduction to Discrete Systems (undergraduate course, enrollment = 44, SET score = 7.7, **exceeds departmental mean 7.5**)

- **Fall 2010**, CSE5095 Computational Medical Informatics (special topic course for graduates, enrollment = 16, SET score = 9.3, equal to departmental mean)

Other courses

- **CSE5099** Graduate Independent Study in CSE (offered in every semester since Fall 2010)
- **CSE4099**, Undergraduate Independent Study in CSE (offered in every semester since Fall 2010)
- **CSE4900**, Undergraduate Independent Design Laboratory (offered in Spring 2012)

PROFESSIONAL ACTIVITIES AND SERVICES

Panelist for Federal Agencies

- National Science Foundation
 - Smart and Connected Health (SCH) (2012 -)
 - Information and Intelligent Systems (IIS) (2013, 2014)
 - Advances in Biological Informatics (ABI) (2015, 2016)
 - Critical Techniques, Technologies and Methodologies for Advancing Foundations and Applications of Big Data Sciences and Engineering (BIGDATA) (2016)
- National Institutes of Health
 - Behavioral Genetics and Epidemiology Study Section (BGES, ad hoc panelist multiple times since 2015)
 - Biodata Management and Analysis (BDMA, ad hoc panelist since 2016)
 - Big Data to Knowledge (BD2K, ad hoc panelist in 2017)
 - Biomedical Computing and Health Informatics (BCHI, ad hoc panelist in 2017, being considered for promotion to a standing member)
 - ZRG1 PSE-W (55) Population Sciences and Epidemiology, Special Emphasis Panel, PAR: Accelerating the Pace of Drug Abuse Research Using Existing Data (2018)
 - ZRG1 HDM-G (56) Healthcare Delivery and Methodologies, Special Emphasis Panel, PAR Panel: Surgical Disparities Research (2018)
 - ZDA1 IXN Special Emphasis Panel, PAR Development of Medications to Prevent and Treat Opioid Disorders and Overdose (2019)
 - ZDA1 IXR-Q(01)S Review Panel for NIDA Core “Center of Excellence” Grant (P30) and NIDA “Research Center of Excellence” Grant Program (P50), Jan 2020
 - ZRG1-BDCN-Q-R21 Review Panel for NIDA, March 2020
 - ZDA1 JRB-A (13) Special Emphasis Panel, Leveraging AI Tools for Substance Use Disorder (SUD) Drug Discovery and Development, Nov (2021)
 - HEAL NIDA Panel, HEAL Initiative: Novel Targets for Opioid Use Disorders and Opioid Overdose (R01/R21) March 2022
 - VA Neurobiology-A (NURA) Review Panel on BX-22-008, May 2022
 - ZDA1-LXF-E(M1)R Review Panel for NIDA program Accelerating the Pace of Drug Abuse Research Using Existing Data, May 2023
- Federal Advising Committee
 - Served in a joint
 - Served in the advising committee for Biostatistics of NIAAA and NIDA to prioritize funding targets, 2016, 2017
 - Training in Computer Science and Addiction Science: Bringing Fields Together, a workshop organized by the National Institute on Drug Abuse (NIDA) and National Science Foundation, December 1st 2021

Reviewer for Scientific Journals

Addiction
 Drug and Alcohol Dependence
 Nature Scientific Reports
 Journal of Machine Learning Research
 Machine Learning Journal

Neurocomputing
Neural Computation
Journal of Artificial Intelligence Research
Data Mining and Knowledge Discovery Journal
Optimization Methods and Software
European Journal of Operations Research
IEEE Trans. on Pattern Analysis and Machine Intelligence
IEEE Trans. on Neural Networks and Learning Systems
IEEE Trans. on Systems, Man and Cybernetics (B)
IEEE Trans. on Medical Imaging
IEEE Trans. on Geoscience and Remote Sensing
IEEE Trans. on Multimedia
IEEE Trans. on Knowledge and Data Engineering
PLoS ONE
ACM Transactions on Knowledge and Data Engineering
ACM Transactions on Intelligent System and Technology
Bioinformatics (Oxford)
BMC Bioinformatics
BMC Research International
BMC Medical Informatics and Decision Making
Pattern Analysis and Applications Journal
Pattern Recognition
Pattern Recognition Letters
Journal of Biomedical Informatics
Journal of Medical Systems
Science in China, Series A: Mathematics
International Journal of Applied Mathematics and Computer Science
Applied Mathematical Modeling

Program Committee Member for International Conferences

Uncertainty in Artificial Intelligence (**UAI**), 2022
Neural Information Processing Systems (**NeurIPS**, every year since 2008, best reviewer award in 2017, senior PC members in some years)
ACM International Conference on Data Mining and Knowledge Discovery (**SIGKDD**, 2005 and 2008-2014, annually since 2016)
International Conference on Machine Learning (**ICML**, 2008-2011, 2013-present)
International Joint Conference on Artificial Intelligence (**IJCAI**, Senior PC-member, Meta-Reviewer, 2020, Area Chair 2021, 2022)
AAAI International Conference on Artificial Intelligence (**AAAI** 2016-present, Senior PC-member 2021, 2022)
Asian Conference on Computer Vision (**ACCV**, 2014)
American Medical Informatics Association annual symposium (**AMIA**, 2013, 2014, 2016)
Pacific Symposium on Biocomputing, Stanford Univ. (2014)
IEEE International Conference on Health Informatics (**ICHI**, 2013)
IEEE International Conference on Bioinformatics and Biomedicine (**BIBM**, 2012, 2013)
ACM International Conference on Health Informatics (**IHI**, 2010, 2011)
SIAM International Conference on Data Mining (**SDM**, 2006)
International Conference on Machine Learning and Applications (**ICMLA**, 2006)

Editorial Board Member

Action Editor, Smart Health, since 2023
Editor of Special Issue in IEEE Transactions on Cybernetics, planned for 2023
Editor of Special Issue in Neural Processing Letters on Transfer Learning, 2022

Editor of Special Issue in Applied Intelligence on Multi-view clustering, 2021
Editor for Advances in Chemoinformatics and Computational Methods (ACCM) Book Series
Section Editor for British Journal of Health Informatics and Monitoring
Editor for Computers in Biology and Medicine
Editor for International Journal of Bioinformatics Research and Applications

Organizing Committee

Organizing committee member, IEEE International Conference on Data Mining (ICDM), Workshop on Multi-view Data Analysis, 2022
Area chair, Association for the Advancement in Artificial Intelligence (AAAI), 2021
Area chair, International Joint Conference on Artificial Intelligence (IJCAI), 2020
Senior program committee, Association for the Advancement in Artificial Intelligence (AAAI), 2020
General chair, IEEE International Conference on Bioinformatics and Biomedicine (BIBM) for 2019.
General chair, organizer for the International Workshop on Machine Learning and Big Data Analysis for Disease Classification, 2013, 2016, 2017.
Sponsorship chair, IEEE International Conference on Bioinformatics and Biomedicine (BIBM), 2015.
Industry/government support chair of ACM International Conference on Health Informatics (IHI), 2010.
(<http://ihi2010.sighi.org/>)
Industrial program chair of ACM International Conference on Multimedia Information Retrieval (MIR), 2009.
(<http://riemann.ist.psu.edu/mir2010>)
Special topic organizer at INFORMS annual meeting on Machine Learning Approaches to Medical Diagnosis and Health Care, 2007.
Co-organize ACM SIGKDD CUP 2006 contest on Pulmonary Embolism detection from CT images, 2006.
(http://www.cs.unm.edu/kdd_cup_2006)

Service at the University of Connecticut

- Chair for workload committee in the CSE Department, 2022, 2023
- Member of CSE Honors Advising Committee, 2011-2023
- Chair of the CSE for Research and Strategic Initiatives, 2019-2023
- Member of Advisory committee for The Convergence Institute at UConn T32, 2022
- As an associate head, assign and match faculty mentors for new faculty members, 2019-
- As an associate head, manage and arrange the office and lab space for faculty members and graduate students
- Organizing research initiatives meetings to discuss how to incentivize faculty efforts for large multi-million grants and high-impact publications
- Organizing the Summer Machine Learning Workshop for Youth as principal investigator (connecting with Mansfield Middle School and E. O Smith High School), 2019
- Organizing joint Data Science seminar with the Department of Statistics, 2018
- Organizing an invited session on “Machine Learning and Big Data Analytics” at the 31st New England Statistics Symposium, held at the Statistic Department of UConn, April 2017
- Presentation at UConn School of Engineering and the Student Association of Graduate Engineers (SAGE) workshop on “How to Write a Proposal: Secrets of Successful Grants”, 2016
- Host UConn Joule Fellows for High School Teachers – an outreach program funded by NSF, 2015
- *Faculty Search Committees*
- Open Search, 2020-2021
 - Machine Learning and AI Search, 2019-2020
 - Machine Learning and Open Search, 2018-2019
 - Machine Learning for Manufacturing, 2017-2018
 - Security, 2017
 - Machine Learning/Artificial Intelligence, 2017
 - Machine Learning/Big Data, 2014
 - Computational Genomics, 2013
 - 3D Animation Joint search of School of Engineering, School of Science and School of Fine Art, 2012

- Open House of UConn Computer Science and Engineering, 2010, 2011

PATENTS

Patents Awarded (11)

1. Multi-level Contextual Learning of Data, Dijia Wu, Le Lu, Jinbo Bi, Yoshihisa Shinagawa, and Marcos Salganicoff, Patent No. 8,724,866, granted on May 13, 2014.
2. Computer Aided Detection of Pulmonary Embolism with Local Characteristic Features in CT Angiography, Jianming Liang and Jinbo Bi, Patent No. 8,244,012, granted on August 14, 2012.
3. Reduction of Lymph Tissue False Positives in Pulmonary Embolism Detection, Bernard S. Ghanem, Jianming Liang and Jinbo Bi, Patent No. 8,126,229, granted on February 28, 2012.
4. Sparse Collaborative Computer Aided Diagnosis, Jinbo Bi, Patent No. 8,064,662, granted on November 22, 2011.
5. System and Method for Computer Aided Detection of Pulmonary Embolism in Tobogganing in CT Angiography, Jiangming Liang and Jinbo Bi, Patent No. 8,036,440, granted on October 11, 2011.
6. System and Method for Joint Optimization of Cascaded Classifiers for Computer Aided Detection, Murat Dundar and Jinbo Bi, Patent No. 7,962,428, granted on June 14, 2011.
7. Method of Multiple Instance Learning and Classification with Correlations in Object Detection, Jinbo Bi and Jianming Liang, Patent No. 7,822,252, granted on October 26, 2010.
8. System and Method for Computer Aided Detection via Asymmetric Cascade of Sparse Linear Classifiers, Jinbo Bi, P. Senthil, O. Kazunori, K. Toshiro, F. Glenn, S. Marcos, R. B. Rao, Patent No. 7,756,313, granted on July 13, 2010.
9. Hierarchical Modeling In Medical Abnormality Detection, Sriram Krishnan, Jinbo Bi and Bharat Rao, Patent No. 7,653,227, granted on January 26, 2010.
10. Support Vector Classification with Bounded Uncertainties in Input Data, Jinbo Bi, Patent No. 7,480,639, granted on January 20, 2009.
11. System and Method For A Sparse Kernel Expansion For A Bayes Classifier, Murat Dundar, Glenn Fung, Jinbo Bi and Bharat Rao. Patent No. US 7,386,165 B2, granted on June 10, 2008.

Patents Pending (9)

1. Software/App Disclosure Form, Fragment-based deep molecular generative strategies to improve drug design, Zhenxiang Gao, Jinbo Bi, and Minghu Song, filed on 3/24/2021.
2. Systems and Methods for Multilevel Nodule Attachmetn Classification in 3D CT Lung Images, Jinbo Bi, Le Lu, Marcos Salganicoff, Yoshihisa Shinagawa, Dijia Wu, Patent Application No. 20110064289, Application Serial No. 12/880,385, September 13, 2010.
3. Computer Aided Detection of Pulmonary Embolism with Local Characteristic Features in CT Angiography, Jianming Liang and Jinbo Bi, Patent Application Serial No. 12/398,450, Attorney Docket No: 2008P04620US01, March 26, 2009.
4. Reduction of Lymph Tissue False Positive in Pulmonary Embolism Detection, Bernard Ghanem, Jianming Liang, Jinbo Bi, Patent Application Serial No.12/182,320, Attorney Docket No: 2007P16531US01, August 26, 2008.
5. Systems and Method for Large Scale Code Classification for Medical Patient Records, Jinbo Bi, Lucian Lita, Stefan Niculescu and Shipeng Yu, Patent Application Serial No. 12/119,778, Attorney Docket No: 2007P10175US01, June 5, 2008.
6. Systems and Method for Computer Aided Detection of Pulmonary Embolism in Tobogganing CT Angiography, Jianming Liang and Jinbo Bi, Patent Application Serial No. 60/888,165, Attorney Docket No: 2007P02479US01, February 15, 2008.

7. Sparse Collaborative Computer Aided Diagnosis, Jinbo Bi, Patent Application Serial No: 11/776,838, Attorney Docket No: 2006P14925US01, July 12, 2007.
8. System and Method for Learning Ranking via Convex Hull Separation, Jinbo Bi, Glenn Fung, Sriram Krishnan, Balaji Krishnapuram, Bharat Rao and Romer Rosales, Patent Application Serial No: 11/444,606, Attorney Docket No: 2005P09625US, June 1, 2006.
9. Hierarchical Medical Image View Determination, Sriram Krishnan, Jinbo Bi, Bharat Rao and Jonathan Stoeckel, Matthew Otey. Patent Application Serial No: 11/231,593, Attorney Docket No: 2004P16080US01, August 17, 2005.
10. A System and Method for an Iterative Technique to Determine Fisher Discriminant Using Heterogeneous Kernels, Glenn Fung, Murat Dundar, Jinbo Bi and Bharat Rao, Patent Application Serial No: 11/050,599, Attorney Docket No: 2004P01917US01, February 3, 2005.