Yaohang Li

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EDUCATION:	Florida State University, Tallahassee, Florida
Aug., 2003	Ph.D., Computer Science
	Major Advisor: Dr. Michael Mascagni
	Dissertation Title: A Grid Computing Infrastructure for Monte Carlo Applications
Aug., 2000	Florida State University, Tallahassee, Florida
	M.S., Computer Science
July, 1997	South China University of Technology, Guangzhou, China
	B.S., Computer Science and Engineering
	Minor, English Literature

HONORS:	**By Old Dominion University**
2014	Silver Star Teaching Award
	By National Science Foundation (NSF):
2009	CAREER Award
	By National Center for Supercomputing Applications (NCSA):
2007	Summer Faculty Fellowship
	By North Carolina A&T State University:
2005	"Rookie of the Year" Young Researcher Award
	By Oak Ridge Associated Universities (ORAU):
2005	Ralph E. Powe Junior Faculty Enhancement Award
	By Florida State University:
2002	School of Computational Science and Information Technology Fellowship
2002	Dissertation Research Grant Award, Graduate Study Office
2001	School of Computational Science and Information Technology Fellowship
	By IBM:
1997	IBM Manager Recognized Award

PROFESSIONAL EXPERIENCE:	**Old Dominion University**	**Norfolk, VA**
	Department of Computer Science	
2010-present	Associate Professor	
	Office of Naval Research	**Dam Neck, VA**
2020	Summer Faculty Research Fellow	
2019	Summer Faculty Research Fellow	
	North Carolina Agricultural and Technical University	**Greensboro, NC**
2009-2010	Associate Professor, Department of Computer Science	
2003-2009	Assistant Professor, Department of Computer Science	
Summer, 2008	**Oak Ridge National Laboratory**	**Oak Ridge, TN**
	Participating University Faculty	

Summer, 2007	**National Center for Supercomputing Applications**	**Urbana-Champagne, IL**
	Summer Faculty Fellow, University of Illinois, Urbana-Champagne	
Summer, 2006	**Oak Ridge National Laboratory**	**Oak Ridge, TN**
	Participating University Faculty	
Summer, 2003	**Oak Ridge National Laboratory**	**Oak Ridge, TN**
	Research Associate, Computer Science and Mathematics Division	
1999–2003	**Florida State University**	**Tallahassee, FL**
	Research Assistant, Department of Computer Science	
Spring, 2002	**University of Salzburg**	**Salzburg, Austria**
	Visiting Scholar, Department of Scientific Computing	
Winter, 2001	**Florida State University**	**Tallahassee, FL**
	Research Assistant, Department of Chemical Engineering	
1998–1999	**University of Southern Mississippi**	**Hattiesburg, MS**
	Research Assistant, Computer Science	
1997–1998	**IBM China Ltd.**	**Guangzhou, China**
	IT Specialist, Software and Networking	

RESEARCH INTERESTS:

Computational Biology and Bioinformatics
Machine Learning and Artificial Intelligence
Monte Carlo Methods, Randomized Algorithms
Big Data Analysis, High Performance Computing
Computational Physics

JOURNAL PAPERS:

[72] M. Yang, **Yaohang Li**, J. Wang, "*Feature and Nuclear Norm Minimization for Matrix Completion,*" IEEE Transactions on Knowledge and Data Engineering, accepted, 2020. (Impact Factor: 3.857)

[71] W. Elhefnawy, M. Li, J. Wang, **Yaohang Li**, "*DeepFrag-k: a fragment-based deep learning approach for protein fold recognition,*" BMC Bioinformatics, accepted, 2020. (Impact Factor: 2.511)

[70] H. Luo, M. Yang, M. Li, **Yaohang Li**, F. Wu, J. Wang, "*Biomedical data and computational models for drug repositioning: a comprehensive review,*" Briefings in Bioinformatics, bbz176, 2020. (Impact Factor: 9.101)

[69] H. Jiang, M. Yang, X. Chen, M. Li, **Yaohang Li**, J. Wang, "*miRTMC: A miRNA target prediction method based on matrix completion algorithm,*" IEEE Journal of Biomedical and Health Informatics, accepted, 2020. (Impact Factor: 4.217)

[68] M. Zeng, C. Lu, Z. Fei, F. Wu, **Yaohang Li**, J. Wang, M. Li, "*DMFLDA: A deep learning framework for predicting lncRNA–disease associations,*" IEEE/ACM Transactions on Computational Biology and Bioinformatics, accepted, 2020. (Impact Factor: 2.896)

[67] M. Zeng, C. Lu, F. Zhang, Y. Li, F. Wu, **Yaohang Li**, M Li, "*SDLDA: lncRNA–disease association prediction based on singular value decomposition and deep learning,*" Methods, **179**: 73-80, 2020. (Impact Factor: 3.782)

[66] D. Guo, G. Duan, Y. Yu, **Yaohang Li**, F. Wu, M. Li, "*A disease inference method based on symptom extraction and bidirectional Long Short Term Memory networks,*" Methods, **173**: 75-82, 2020. (Impact Factor: 3.782)

[65] F. Zhang, H. Song, M. Zeng, **Yaohang Li**, F. Wu, Y. Pan, M. Li, "*A deep learning framework for gene ontology annotations with sequence- and network-based information,*" IEEE/ACM transactions on computational biology and bioinformatics, accepted, 2020. (Impact Factor: 2.896)

[64] M. Zeng, F. Zhang, F. Wu, **Yaohang Li**, J. Wang, M. Li, "*Protein–protein interaction site prediction through combining local and global features with deep neural networks,*" Bioinformatics, **36**(4): 1114-1120, 2020. (Impact Factor: 4.531)

[63] C. Lu, M. Yang, M. Li, **Yaohang Li**, F. Wu, J. Wang, "*Predicting human lncRNA-disease associations based on geometric matrix completion,*" IEEE Journal of Biomedical and Health Informatics, **24**(8): 2420-2429, 2020. (Impact Factor: 4.217)

[62] G. Li, M. Li, J. Wang, **Yaohang Li**, Y. Pan, "*United neighborhood closeness centrality and orthology for predicting essential proteins,*" IEEE/ACM transactions on computational biology and bioinformatics, **17**(4): 1451-1458, 2020. (Impact Factor: 2.896)

[61] M. Yang, H. Luo, **Yaohang Li**, F. Wu, J. Wang, "*Overlap Matrix Completion for Predicting Drug-Associated Indications,*" PLOS Computational Biology, **15**(12): e1007541, 2019. (Impact Factor: 4.428)

[60] M. Zeng, M. Li, F. Wu, **Yaohang Li**, Y Pan, "*DeepEP: a deep learning framework for identifying essential proteins,*" BMC Bioinformatics, **20**(S16): 506, 2019. (Impact Factor: 2.511)

[59] W. Elhefnawy, M. Li, J. Wang, **Yaohang Li**, "*Decoding the Structural Keywords in Protein Structure Universe,*" Journal of Computer Science and Technology, **34**(1): 3-15, 2019. (Impact Factor: 1.185)

[58] Z. Haratipour, H. Aldabagh, **Yaohang Li**, L. H. Greene, "*Network Connectivity, Centrality and Fragmentation in the Greek-Key Protein Topology,*" The Protein Journal, **38**(5): 497-505, 2019. (Impact Factor: 1.317)

[57] G. Li, M. Li, W. Peng, **Yaohang Li**, Y. Pan, J. Wang, "*A novel extended Pareto Optimality Consensus model for predicting essential proteins,*" Journal of Theoretical Biology, **480**: 141-149, 2019. (Impact Factor: 1.875)

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[55] Y. Yu, M. Li, L. Liu, **Yaohang Li**, J. Wang, "*Clinical big data and deep learning: Applications, challenges, and future outlooks,*" Big Data Mining and Analytics, **2**(4): 288-305, 2019.

[54] D. Guo, G. Duan, Y. Yu, **Yaohang Li**, F. X. Wu, M. Li, "*A disease inference method based on symptom extraction and bidirectional Long Short Term Memory networks,*" Methods, in press, 2019. (Impact Factor: 3.782)

[53] M. Yang, H. Luo, **Yaohang Li**, J. Wang, "*Drug repositioning based on bounded nuclear norm regularization,*" Bioinformatics, **35**(14): i455-i463, 2019. (Impact Factor: 4.531)

[52] F. Zhang, H. Song, M. Zeng, **Yaohang Li**, L. Kurgan, M. Li, "*DeepFunc: A Deep Learning Framework for Accurate Prediction of Protein Functions from Protein Sequences and Interactions,*" Proteomics, 1900019, 2019. (Impactor Factor: 3.106)

[51] X. Chen, M. Li, R. Zheng, S. Zhao, F. X. Wu, **Yaohang Li**, J. Wang, "*A novel method of gene regulatory network structure inference from gene knock-out expression data,*" Tsinghua Science and Technology, **24**(4): 446-455, 2019. (Impact Factor: 1.696)

[50] M. Zeng, M. Li, Z. Fei, F. Wu, **Yaohang Li**, Y. Pan, J. Wang, "*A deep learning framework for identifying essential proteins by integrating multiple types of biological information,*" IEEE/ACM transactions on computational biology and bioinformatics, in press, 2019. (Impact Factor: 2.896)

[49] H. Luo, M. Li, S. Wang, Q. Liu, **Yaohang Li**, J. Wang, "*Computational Drug Repositioning using Low-Rank Matrix Approximation and Randomized Algorithms,*" Bioinformatics, **34**(11): 1904-1912, 2018. (Impact Factor: 4.531)

[48] A. Ramlatchan, M. Yang, Q. Liu, M. Li, J. Wang, **Yaohang Li**, "*A Survey of Matrix Completion Methods for Recommendation Systems*," Big Data Mining and Analytics, **1**(4): 308-323, 2018.

[47] W. Yu, Y. Gu, **Yaohang Li**, "*Efficient Randomized Algorithms for the Fixed-Precision Low-Rank Matrix Approximation*," SIAM Journal on Matrix Analysis and Applications, **39**(3): 1339-1359, 2018. (Impact Factor: 1.912)

[46] C. Lu, M. Yang, F. Luo, F. Wu, M. Li, Y. Pan, **Yaohang Li**, J. Wang, "*Prediction of lncRNA-Disease Associations based on Inductive Matrix Completion*," Bioinformatics, **34**(19): 3357-3364, 2018. (Impact Factor: 4.531)

[45] P. Ni, J. Wang, P. Zhong, **Yaohang Li**, F. Wu, Y. Pan, "*Constructing Disease Similarity Networks Based on Disease Module Theory*," IEEE/ACM Transactions on Computational Biology and Bioinformatics, in press, 2018. (Impact Factor: 2.896)

[44] M. Li, Z. Fei, M. Zeng, F. Wu, **Yaohang Li**, Y. Pan, J. Wang, "*Automated ICD-9 Coding via A Deep Learning Approach*," IEEE/ACM Transactions on Computational Biology and Bioinformatics, in press, 2018. (Impact Factor: 2.896)

[43] M. Abdelrasoul, K. Ponniah, A. Mao, M. S. Warden, W. Elhefnawy, **Yaohang Li**, S. M. Pascal, "*Conformational Clusters of Phosphorylated Tyrosine,*" Journal of the American Chemical Society, **139**: 17632-17638, 2017. (Impact Factor: 14.695)

[42] Y. Liang, X. Xing, **Yaohang Li**, "*A GPU-based Large-scale Monte Carlo Simulation Method for Systems with Long-range Interactions,*" Journal of Computational Physics, **338**: 252-268, 2017. (Impact Factor: 2.845)

[41] M. Li, R. Zheng, **Yaohang Li**, F. Wu, J. Wang, "*MGT-SM: A Method for Constructing Cellular Signal Transduction Networks,*" IEEE/ACM Transactions on Computational Biology and Bioinformatics, **16**(2): 417-424, 2017. (Impact Factor: 2.896)

[40] M. Li, X. Meng, R. Zheng, F. Wu, **Yaohang Li**, Y. Pan, J. Wang, "*Identification of protein complexes by using a spatial and temporal active protein interaction network*," IEEE/ACM Transactions on Computational Biology and Bioinformatics, **17**(3): 817-827, 2017. (Impact Factor: 2.896)

[39] H. Ji, **Yaohang Li**, S. Weinberg, "*Calcium Ion Fluctuations Alter Channel Gating in a Stochastic Luminal Calcium Release Site Model*," IEEE/ACM Transactions on Computational Biology and Bioinformatics, **14**(3): 611-619, 2017. (Impact Factor: 2.896)

[38] J. L. Hung, M. C. Wang, S. Wang, M. Abdelrasoul, **Yaohang Li**, W. He, "*Identifying At-Risk Students for Early Interventions - A Time Series Clustering Approach,*" IEEE Transactions on Emerging Topics in Computing, **5**(1): 45-55, 2017. (Impact Factor: 4.989)

[37] H. Ji, **Yaohang Li**, "*A Breakdown-Free Block Conjugate Gradient Method*," BIT Numerical Mathematics, **57**: 379-403, 2017. (Impact Factor: 1.451)

[36] X. Feng, K. Li, W. Yu, **Yaohang Li**, "*Fast matrix completion algorithm based on randomized singular value decomposition and its applications*," Journal of Computer-Aided Design & Computer Graphics **12**: 193-198, 2017.

[35] A. Yaseen, H. Ji, **Yaohang Li**, "*A Load-Balancing Workload Distribution Scheme for Three-Body Interaction Computation on Graphics Processing Units (GPU)*," Journal of Parallel and Distributed Computing, **87**: 91-101, 2016. (Impact Factor: 1.819)

[34] H. Ji, **Yaohang Li**, "*Block Conjugate Gradient Algorithms for Least Squares Problems*," Journal of Computational and Applied Mathematics, **317**: 203-217, 2016. (Impact Factor: 1.883)

[33] J. López-Blanco, A. Canosa-Valls, **Yaohang Li**, P. Chacón, "*RCD+: Fast loop modeling server*," Nucleic Acids Research, **44**(W1): W395-W400, 2016. (Impact Factor: 11.147)

[32] A. Yaseen, M. Nijim, B. Williams, L. Qian, J. Wang, M. Li, **Yaohang Li**, "*FLEXc: Protein Flexibility Prediction using Context-based Statistics, Predicted Structural*

Features, and Sequence Information," BMC Bioinformatics, **17**(S8): 281, 2016. (Impact Factor: 2.511)

[31] Y. Liang, D. Wu, G. Liu, **Yaohang Li**, C. Gao, Z. Ma, W. Wu, "*Big Data-enabled Multiscale Serviceability Analysis for Aging Bridges*," Digital Communications and Networks, **2**(3): 97-107, 2016. (Impact Factor: 5.382)

[30] W. Lan, J. Wang, M. Li, J. Liu, **Yaohang Li**, F. Wu, Y. Pan, "*Predicting drug–target interaction using positive-unlabeled learning*," Neurocomputing, **206**: 50-57, 2016. (Impact Factor: 4.072)

[29] B. Zhao, J. Wang, M. Li, X. Li, **Yaohang Li**, F. Wu, Y. Pan, "*A new method for predicting protein functions from dynamic weighted interactome networks*," IEEE Transactions on NanoBioscience, **15**(2): 131-139, 2016. (Impact Factor: 1.927)

[28] W. Elhefnawy, L. Chen, Y. Han, **Yaohang Li**, "*ICOSA: A Distance-dependent, Orientation-specific Coarse-grain Contact Potential for Protein Structure,*" Journal of Molecular Biology, **427**(15): 2562-2576, 2015. (Impact Factor: 5.067)

[27] W. He, J. Shen, X. Tian, **Yaohang Li**, A. Akula, G Yan, R. Tao, "*Gaining Competitive Intelligence from Social Media Data: Evidence from Two Largest Retail Chains in the World*," Industrial Management & Data Systems, **115**(9): 1622-1636, 2015. (Impact Factor: 3.727)

[26] W. He, A. Kshirsagar, A. Nwala, **Yaohang Li**, "*Teaching Information Security with Workflow Technology – A Case Study Approach*," Journal of Information Systems Education, **25**(3): 201-210, 2014.

[25] A. Yaseen, **Yaohang Li**, "*Template-based C8-SCORPION: a Protein 8-state Secondary Structure Prediction Method using Structural Information and Context-based Features,*" BMC Bioinformatics, **15**(S8): S3, 2014. (Impact Factor: 2.511)

[24] A. Yaseen, **Yaohang Li**, "*Context-based Features Enhance Protein Secondary Structure Prediction Accuracy,*" Journal of Chemical Information and Modeling, **54**(3): 992-1002, 2014. (Impact Factor: 3.966)

[23] H. Ji, M. Mascagni, **Yaohang Li**, "*Convergence Analysis of Markov Chain Monte Carlo Linear Solvers using Ulam-von Neumann Algorithm,*" SIAM Journal on Numerical Analysis, **51**(4): 2107-2122, 2013. (Impact Factor: 2.322)

[22] A. Yaseen, **Yaohang Li**, "*Dinosolve: A Protein Disulfide Bonding Prediction Server using Context-based Features to Enhance Prediction Accuracy,*" BMC Bioinformatics, **14**(Suppl 13): S9, 2013. (Impact Factor: 2.511)

[21] **Yaohang Li**, "*Conformational Sampling in Template-Free Protein Loop Structure Modeling: An Overview,*" Computational and Structural Biotechnology Journal, **5**(6): e201302003, 2013. (Impact Factor: 4.720)

[20] L. Tran, D. Banerjee, J. Wang, A. Kumar, F. McKenzie, **Yaohang Li**, J. Li, "*High-Dimensional MRI Data Analysis using a Large-Scale Manifold Learning Approach*," Machine Vision and Applications, **24**(5): 995-1014, 2013. (Impact Factor: 1.788)

[19] **Yaohang Li**, H. Liu, I. Rata, E. Jakobsson, "*Building a Knowledge-based Statistical Potential by Capturing High-Order Inter-Residue Interactions and its Applications in Protein Secondary Structure Assessment,*" Journal of Chemical Information and Modeling, **53**(2): 500-508, 2013. (Impact Factor: 3.966)

[18] **Yaohang Li**, "*MOMCMC: An Efficient Monte Carlo Method for Multi-Objective Sampling over Real Parameter Space,*" Computers and Mathematics with Applications, **64**: 3542-3556, 2012. (Impact Factor: 2.811)

[17] A. Yaseen, **Yaohang Li**, "*Accelerating Knowledge-based Energy Evaluation in Protein Structure Modeling with Graphics Processing Units*," Journal of Parallel and Distributed Computing, **72**(2): 297-307, 2012. (Impact Factor: 1.819)

[16] **Yaohang Li**, I. Rata, E. Jakobsson, "*Sampling Multiple Scoring Functions Can Improve Protein Loop Structure Prediction Accuracy,*" Journal of Chemical Information and Modeling, **51**(7): 1656-1666, 2011. (Impact Factor: 3.966)

5

[15] W. Zhu, A. Yaseen, **Yaohang Li**, "*DEMCMC-GPU: An Efficient Multi-Objective Optimization Method with GPU Acceleration on the Fermi Architecture*," New Generation Computing, **29**(2): 163-184, 2011. (Impact Factor: 0.833)

[14] **Yaohang Li**, I. Rata, S. Chiu, E. Jakobsson, "*Improving Predicted Protein Loop Structure Ranking using a Pareto-Optimality Consensus Method*," BMC Structural Biology, **10**: 22, 2010. (Impact Factor: 1.308)

[13] I. Rata, **Yaohang Li**, E. Jakobsson, "*Backbone Statistical Potential from Local Sequence-Structure Interactions in Protein Loops,*" Journal of Phys. Chem. B, **114**(5): 1859-1869, 2010. (Impact Factor: 2.923)

[12] **Yaohang Li**, V. A. Protopopescu, N. Arnold, X. Zhang, A. Gorin, "*Hybrid Parallel Tempering/Simulated Annealing Method,*" Applied Mathematics and Computation, **212**: 216-228, 2009. (Impact Factor: 3.092)

[11] **Yaohang Li**, M. Mascagni, A. Gorin "*A Decentralized Parallel Implementation for Parallel Tempering Algorithm,*" Parallel Computing, **35**(5): 269-283, 2009. (Impact Factor: 1.281)

[10] **Yaohang Li**, C. E. M. Strauss, A. Gorin, "*Hybrid Parallel Tempering and Simulated Annealing Method – an Efficient Sampling Method in ab initio Protein Folding*," International Journal of Computational Science, **2**(5): 646-661, 2008.

[9] **Yaohang Li,** Y. D. Song, "*An Adaptive and Trustworthy Software Testing Framework on the Grid*," Journal of SupterComputing, **46**: 124-138, 2008. (Impact Factor: 2.157)

[8] **Yaohang Li**, D. Chen, X. Yuan, "*Trustworthy Remote Compiling Service for Grid-based Scientific Applications*," Journal of SuperComputing, **41**(2): 119-131, 2007. (Impact Factor: 2.157)

[7] **Yaohang Li**, "*A Bio-inspired Adaptive Job Scheduling Mechanism on the Grid,*" International Journal of Computer Science and Network Security, **6**(3B): 1-7, 2006.

[6] **Yaohang Li**, M. Mascagni, "*Grid-based Quasi-Monte Carlo Applications*," Monte Carlo Methods and Applications, **11**: 39-55, 2005.

[5] **Yaohang Li**, V. A. Protopopescu, A. Gorin, "*Accelerated Simulated Tempering*," Physics Letters A, **328**(4): 274-283, 2004. (Impact Factor: 2.087)

[4] **Yaohang Li**, M. Mascagni, R. van Engelen, Q. Cai, "*A Grid Workflow-Based Monte Carlo Simulation Environment,*" Journal of Neural Parallel and Scientific Computations, **12**: 439-455, 2004.

[3] **Yaohang Li**, M. Mascagni, "*Analysis of Large-scale Grid-based Monte Carlo Applications,*" International Journal of High Performance Computing Applications (IJHPCA), **17**(4): 369-382, 2003. (Impact Factor: 1.956)

[2] Y. Zhang, **Yaohang Li**, M. H. Peters, "*Nonequilibrium, Multiple-Time Scale Simulations of Ligand-Receptor Interactions in Structured Protein Systems*," Proteins: Structure, Function, and Genetics, **52**(3): 339-348, 2003. (Impact Factor: 2.501)

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BOOK CHAPTERS:

[5] L. Kurgan, M. Li, **Yaohang Li**, "*The Methods and Tools for Intrinsic Disorder Prediction and Their Application to Systems Medicine*," Reference Module in Biomedical Sciences, 2019.

[4] Y. Liang, D. Wu, D. Huston, G. Liu, **Yaohang Li**, C. Gao, Z. Ma, "*Civil Infrastructure Serviceability Evaluation Based on Big Data*," Guide to Big Data Applications, Springer, 2018.

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[2] **Yaohang Li**, M. Mascagni, "*An Overview of Grid-based Monte Carlo Computing,*" Grid Technologies, Emerging from Distributed Architectures to Virtual Organizations, WIT Press, ISBN: 978-1-84564-055-2, 2006.

[1] Y. D. Song, **Yaohang Li**, M. Bikdash, T. Dong, "*Cooperative Control of Multiple UAV's in Close Formation Flight via Nonlinear Adaptive Approach,*" Theory and Algorithms for Cooperative Systems, World Scientific Publishing Company, ISBN: 978-9-81256-020-9, 2004.

PEER-REVIEWED CONFERENCE PAPERS:

[58] W. Xuan, N. Liu, N. Huang, **Yaohang Li**, J. Wang, "*CLPred: A sequence-based protein crystallization predictor using BLSTM neural network,*" 19th European Conference on Computational Biology (ECCB2020), accepted, 2020. (Acceptance rate 21.18%)

[57] G. Wu, M. Yang, **Yaohang Li**, J. Wang, "*De novo prediction of drug-target interaction via Laplacian regularized Schatten-p norm minimization,*" International Symposium on Bioinformatics Research and Applications (ISBRA2020), accepted, 2020. (Acceptance rate 48.2%)

[56] M. Yang, H. Luo, **Yaohang Li**, J. Wang, "*Drug repositioning based on bounded nuclear norm regularization,*" Proceedings of the 27th Conference on Intelligent Systems for Molecular Biology and the 19th European Conference on Computational Biology (ISMB/ECCB2019), Basel, 2019. (Acceptance rate 18.9%)

[55] Q. Zhao, F. Xiao, M. Yang, **Yaohang Li**, J. Wang, "*AttentionDTA: prediction of drug–target binding affinity using attention model,*" Proceedings of IEEE International Conference on Bioinformatics and Biomedicine (BIBM2019), San Diego, 2019. (Acceptance rate 18%)

[54] M. Zeng, C. Lu, F. Zhang, Z. Lu, F. Wu, **Yaohang Li**, M. Li, "*LncRNA–disease association prediction through combining linear and non-linear features with matrix factorization and deep learning techniques,*" Proceedings of IEEE International Conference on Bioinformatics and Biomedicine (BIBM2019), San Diego, 2019. (Acceptance rate 18%)

[53] W. Elhefnawy, **Yaohang Li**, "*DeepFrag-k: A Fragment-based Deep Learning Approach for Protein Fold Recognition,*" Proceedings of International Symposium on Bioinformatics Research and Applications (ISBRA2019), Barcelona, 2019. (Acceptance rate 23.2%)

[52] D. Guo, M. Li, Y. Yu, **Yaohang Li**, G. Duan, F. Wu, J. Wang, *"Disease Inference with Symptom Extraction and Bidirectional Recurrent Neural Network,"* Proceedings of IEEE International Conference on Bioinformatics and Biomedicine (BIBM2018), 2018. (Acceptance rate 19.2%)

[51] M. Zeng, M. Li, Z. Fei, F. Wu, **Yaohang Li**, Y. Pan, "*A deep learning framework for identifying essential proteins based on protein-protein interaction network and gene expression data,*" Proceedings of IEEE International Conference on Bioinformatics and Biomedicine (BIBM2018), 2018. (Acceptance rate 19.2%)

[50] X. Feng, W. Yu, **Yaohang Li**, "*Faster Matrix Completion Using Randomized SVD,*" Proceedings of the 30th IEEE International Conference on Tools with Artificial Intelligence, (ITCAI2018), Volos, 2018. (Acceptance rate 29%)

[49] M. Abdelrasoul, **Yaohang Li**, "*Exploring Multi-Objective with Protein Sequence Alignment,*" Proceedings of the 10th International Conference on Bioinformatics and Computational Biology, (BICoB-2018), Las Vegas, 2018.

[48] Y. Wang, M. Li, R. Zheng, X. Shi, **Yaohang Li**, F. Wu, J. Wang, "*Using Deep Neural Network to Predict Drug Sensitivity of Cancer Cell Lines,*" Proceedings of International Conference on Intelligent Computing, (ICIC 2018), Wuhan, 2018. (Acceptance rate 43.5%)

[47] W. Yu, Y. Gu, J. Li, S. Liu, **Yaohang Li**, "*Single-Pass PCA of Large High-Dimensional Data,*" Proceedings of 26th International Joint Conference on Artificial Intelligence (IJCAI2017), Melbourne, 2017. (Acceptance rate 26%)

[46] W. Elhenfnawy, **Yaohang Li**, "*Construction of Protein Backbone Fragments Libraries on Large Protein Sets using a Randomized Spectral Clustering Algorithm,*" Proceedings of International Symposium on Bioinformatics Research and Applications (ISBRA2017), Hononulu, 2017. (Acceptance rate 20.6%)

[45] **Yaohang Li**, R. Mukkamala, M. Mascagni, "*Validating the Correctness of Outsourced Computational Tasks using Pseudorandom Number Generators*," Proceedings of the 15th IEEE International Conference on Dependable, Autonomic and Secure Computing, (DASC 2017), Orlando, 2017.

[44] P. Ni, M. Li, P. Zhong, G. Duan, J. Wang, **Yaohang Li**, F. Wu, "*Relating Diseases Based on Disease Module Theory*," Proceedings of International Symposium on Bioinformatics Research and Applications (ISBRA2017), Hononulu, 2017. (Acceptance rate 20.6%)

[43] W. Elhenfnawy, J. Wright, K. Kallepalli, K. Racheal, A. Gupta, **Yaohang Li**, R.Parimi, P. Shah, "*What Differentiates News Articles with Short and Long Shelf Lives? A Case Study on News Articles at Bloomberg.com,*" proceedings of 6th IEEE International Conference on Big Data and Cloud Computing (BDCloud 2016), Atlanta, 2016. (Acceptance rate 46.2%)

[42] H. Ji, S. H. Weinberg, M. Li, J. Wang, **Yaohang Li**, "*An Apache Spark Implementation of Block Power Method for Computing Dominant Eigenvalues and Eigenvectors of Large-Scale Matrices,*" proceedings of Applications of Big Data Science (ABDS16) Workshop, Atlanta, 2016. (Acceptance rate 34.7%)

[41] M. Abdelrasoul, **Yaohang Li**, "*Coarse-grained Contact Potential Helps Improve Fold Recognition Sensitivity in Template-based Protein Structure Modeling,*" proceedings of Big Data And Cloud Computing in Bioinformatics (BDACCB2016) Workshop, Atlanta, 2016.

[40] A. Dinh, D. Brill, **Yaohang Li**, W. He, "*Malware Sequence Alignment,*" proceedings of Big Data And Cloud Computing in Bioinformatics (BDACCB2016) Workshop, 2016.

[39] H. Ji, E. O'Saben, R. Lambi, **Yaohang Li**, "*Matrix Completion Based Model V2.0: Predicting the Winning Probabilities of March Madness Matches,*" Proceedings of Modeling, Simulation, and Visualization Student Capstone Conference, Suffolk, VA, 2016.

[38] M. Li, R. Zheng, **Yaohang Li**, F. Wu, J. Wang, "*MGT-SM: a method for constructing cellular signal transduction networks,*" Proceedings of 27th International Conference on Genome Informatics, Shanghai, 2016.

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[36] W. He, X. Tian, J. Shen, **Yaohang Li**, "*Understanding Mobile Banking Applications' Security risks through Blog Mining and the Workflow Technology*," Proceedings of the International Conference on Information Systems, Fort Worth, 2015. (Acceptance rate 33.7%)

[35] H. Ji, E. O'Saben, A. Boudion, **Yaohang Li**, "*March Madness Prediction: A Matrix Completion Approach,*" Proceedings of Modeling, Simulation, and Visualization Student Capstone Conference, Sulfolk, 2015. (Best Paper Award)

[34] H. Ji, M. Sosonkina, **Yaohang Li**, "*An Implementation of Block Conjugate Gradient Algorithm on CPU-GPU Processors,*" Proceedings of 1st International Workshop on Hardware-Software Co-Design for High Performance Computing (Co-HPC2014), New Orleans, 2014. (Acceptance rate 54%)

[33] Q. Li, S. Pascal, **Yaohang Li**, "*Intrinsically Disorder Protein Prediction using Undersampling Feedforward Neural Networks and Predicted Amino Acid Features,*" Proceedings of Modeling, Simulation, and Visualization Capstone Conference, Sulfolk, 2014.

[32] H. Ji, **Yaohang Li**, "*GPU Accelerated Randomized Singular Value Decomposition and Its Application in Image Compression*," Proceedings of Modeling, Simulation, and Visualization Capstone Conference, Sulfolk, 2014. (Best Paper Award)

[31] A. Yaseen, **Yaohang Li**, "*Predicting Protein Solvent Accessibility with Sequence, Evolutionary Information and Context-based Features*," Proceedings of Biotechnology and Bioinformatics Symposium, (BIOT2013), Provo, 2013.

[30] A. Yaseen, **Yaohang Li**, "*Template-based Prediction of Protein 8-state Secondary Structures*," Proceedings of 3rd IEEE International Conference on Computational Advances in Bio and Medical Sciences, (ICCABS2013), New Orleans, 2013. (Acceptance rate 41.9%)

[29] I. Rata, K. Wessells, **Yaohang Li**, "*An Improved Statistics-based Backbone Torsion Potential Energy for Protein Loop Structure Modeling*," Proceedings of 3rd IEEE International Conference on Computational Advances in Bio and Medical Sciences, (ICCABS2013), New Orleans, 2013. (Acceptance rate 41.9%)

[28] **Yaohang Li**, A. Yaseen, "*Pareto-based Optimal Sampling Method and Its Applications in Protein Structural Conformation Sampling*," Proceedings of AAAI Workshop on Artificial Intelligence and Robotics Methods in Computational Biology, Bellevue, 2013.

[27] **Yaohang Li**, "*A Coarse-grained, Context-dependent Contact Potential for Protein Decoy Discrimination*," Proceedings of the 5th International Conference on Bioinformatics and Computational Biology, (BICoB-2013), Honolulu, 2013.

[26] A. Yaseen, **Yaohang Li**, "*Enhancing Protein Disulfide Bonding Prediction Accuracy with Context-based Features*," Proceedings of Biotechnology and Bioinformatics Symposium, (BIOT2012), Provo, 2012.

[25] H. Ji, **Yaohang Li**, "*Reusing Random Walks in Monte Carlo Methods for Linear Systems*," Proceedings of International Conference on Computational Science, (ICCS2012), Omaha, 2012. (Acceptance rate 30%)

[24] L. Tran, D. Banerjee, J. Wang, A. Kumar, F. McKenzie, **Yaohang Li**, J. Li, "*A Large-Scale Manifold Learning Approach for Brain Tumor Progression Prediction*," Proceedings of 2nd International Workshop on Machine Learning in Medical Imaging, (MLMI2011), Toronto, 2011. (Acceptance rate 59.4%)

[23] **Yaohang Li**, W. Zhu, "*GPU-Accelerated Multi-scoring Functions Protein Loop Structure Modeling,*" Proceedings of 9th IEEE International Workshop on High Performance Computational Biology, (HiCOMB2010), Atlanta, 2010. (Acceptance rate 62.5%)

[22] W. Zhu, **Yaohang Li**, "*GPU-Accelerated Differential Evolutionary Markov Chain Monte Carlo Method for Multi-Objective Optimization over Continuous Space*," Proceedings of 2nd Workshop on Bio-Inspired Algorithms for Distributed Systems, (BADS2010), Washington DC, 2010. (Acceptance rate 60%)

[21] **Yaohang Li**, I. Rata, E. Jakobsson, "*Integrating Multiple Scoring Functions to Improve Protein Loop Structure Conformation Space Sampling,*" Proceedings of IEEE Symposium on Computational Intelligence in Bioinformatics and Computational Biology, (CIBCB2010), Montreal, 2010.

[20] I. Waddell, N. Jones, C. Steed, X. Yuan, **Yaohang Li**, "*Using the Workflow Technology in Secure Software Engineering Education,*" Proceedings of 14th Colloquium for Information Systems Security Education, (CISSE2010), Baltimore, 2010.

[19] **Yaohang Li**, D. Wardell, "*Study of Computing Consolidation Techniques in Computational Protein Loop Structure Modeling,*" Proceedings of 2nd International Conference on Bioinformatics and Computational Biology, (BICoB-2010), Honolulu, 2010.

[18] **Yaohang Li**, D. Wardell, V. Freeh, "*A Resource-Efficient Computing Paradigm for Computational Protein Modeling Applications,*" Proceedings of 8th IEEE International

Workshop on High Performance Computational Biology, (HiCOMB09), Rome, 2009. (Acceptance rate 55%)

[17] **Yaohang Li**, "*A Population-based Approach for Diversified Protein Loop Structure Sampling,*" Proceedings of International Conference on Computational Science, (ICCS09), Baton Rouge, 2009. (Acceptance rate 30%)

[16] X. Zhang, S. Watts, **Yaohang Li**, D. Tortorelli, "*Minkowski Functionals Study of Random Number Sequences,*" Proceedings of International Conference on Computational Science, (ICCS09), Baton Rouge, 2009. (Acceptance rate 30%)

[15] **Yaohang Li**, A. J. Bordner, Y. Tian, X. Tao, A. Gorin, "*Extensive Exploration of the Conformational Space Improves Rosetta Results for Short Protein Domains,*" Proceedings of 7th Annual International Conference on Computational Systems Bioinformatics, (CSB08), Stanford, 2008.

[14] A. Frazier, S. Hudson, **Yaohang Li**, X. Yuan, "*Developing Software System Security Modules,*" Proceedings of 12th Colloquium for Information Systems Security Education, (CISSE08), Dallas, 2008.

[13] **Yaohang Li**, M. Mascagni, A. Gorin "*Decentralized Replica Exchange Parallel Tempering: An Efficient Implementation of Parallel Tempering using MPI and SPRNG,*" Proceedings of International Conference on Computational Science and Its Applications (ICCSA07), Kuala Lumpur, 2007. (Acceptance rate 0.8%)

[12] **Yaohang Li**, T. Dong, X. Zhang, Y. Song, X. Yuan, "*Large-Scale Software Unit Testing on the Grid,*" Proceedings of IEEE International Conference on Granular Computing, (GrC06), Atlanta, 2006. (Acceptance rate 47%)

[11] **Yaohang Li**, J. Clark, X. Zhang, "*Parallel Implementation of the Accelerated Simulated Tempering Method,*" Proceedings of 3rd International Conference on Neural, Parallel & Scientific Computations, (NPSC06), Atlanta, 2006.

[10] X. Zhang, **Yaohang Li**, A. Myklebust, "*Hybrid Optimization of Geometrically Trimmed NURBS Surfaces,*" Proceedings of ASME International Mechanical Engineering Congress & Exposition, (IMECE05), Orlando, 2005.

[9] **Yaohang Li**, M. Mascagni, "*A Bio-inspired Job Scheduling Algorithm for Monte Carlo Applications on a Computational Grid,*" proceedings of 17th IMACS World Congress, Scientific Computation, Applied Mathematics, and Simulation, Paris, France, 2005.

[8] **Yaohang Li**, C. E. M. Strauss, A. Gorin, "*Parallel Tempering in Rosetta Practice,*" Proceedings of International Conference on Bioinformatics and its Applications, (ICBA04), Fort Lauderdale, 2004.

[7] **Yaohang Li**, M. Mascagni, "*E-Science on the Grid: Toward a Dynamic E-Scienc Automation with XML and Workflow Techniques,*" Proceedings of the 8th World Multi-Conference on Systemics, Cybernetics, and Informatics, (SCI04), Orlando, 2004.

[6] **Yaohang Li**, Y. Song, "*Bio-inspired Fault Tolerant and Adaptive System Modeling and Simulation on the Grid,*" Proceedings of the International Conference on Computing, Communications and Control Technologies, (CCCT04), Austin, 2004.

[5] **Yaohang Li**, M. Mascagni, "*e-Science Workflow on the Grid,*" Proceedings of the IADIS International Conference, (e-Society04), Avila, Spain, 2004.

[4] **Yaohang Li**, M. Mascagni, M. H. Peters, "*Grid-based Nonequilibrium Multiple-Time Scale Molecular Dynamics/Brownian Dynamics Simulations of Ligand-Receptor Interactions in Structured Protein Systems,*" Proceedings of the 1st BioGrid Workshop at the 3rd IEEE/ACM Symposium Cluster Computing and the Grid, Tokyo, 2003. (Acceptance rate 34.2%)

[3] M. Mascagni, **Yaohang Li**, "*Computational Infrastructure for Parallel, Distributed, and Grid-based Monte Carlo Computations*," Proceedings of the Fourth International Conference on Large-Scale Scientific Computations (LSSC03), Sozopol, Bulgaria, Lecture Notes in Computer Sciences, **2907**: 39-52, 2003.

[2] **Yaohang Li**, M. Mascagni, "*Improving Performance via Computational Replication on a Large-Scale Computational Grid*," proceedings of the GP2PC at the IEEE/ACM International Symposium on Cluster Computing and the Grid, IEEE/ACM (CCGRID03), Tokyo, 2003. (Acceptance rate 34.2%)

[1] **Yaohang Li**, M. Mascagni, "*Grid-based Monte Carlo Applications*," Lecture Notes in Computer Science, **2536**:13-24, Grid Computing Third International Workshop/Conference, (GRID02), Baltimore, 2002.

arXiv:

[6] Y. Alanazi, P. Ambrozewicz, M. P. Kuchera, **Yaohang Li**, T. Liu, R. E. McClellan, W. Melnitchouk, E. Pritchard, M. Robertson, N. Sato, R. Strauss, L. Velasco, "*AI-based Monte Carlo event generator for electron-proton scattering*," arXiv:2008.03151, 2020.

[5] Y. Alanazi, N. Sato, T. Liu, W. Melnitchouk, M. P. Kuchera, E. Pritchard, M. Robertson, R. Strauss, L. Velasco, **Yaohang Li**, "*Simulation of electron-proton scattering events by a Feature-Augmented and Transformed Generative Adversarial Network (FAT-GAN),*" arXiv:2001.11103, 2020.

[4] H. Ji, M. Mascagni, **Yaohang Li**, "*Gaussian Variant of Freivalds' Algorithm for Efficient and Reliable Matrix Product Verification,*" arXiv:1705.10449, 2017.

[3] **Yaohang Li**, W. Yu, "*A Fast Implementation of Singular Value Thresholding Algorithm using Recycling Rank Revealing Randomized Singular Value Decomposition*," arXiv:1704.05528, 2017.

[2] H. Ji, S. H. Weinberg, **Yaohang Li**, "*A Revisit of Block Power Methods for Finite State Markov Chain Applications*," arXiv:1610.08881, 2016.

[1] H. Ji, W. Yu, **Yaohang Li**, "*A Rank Revealing Randomized Singular Value Decomposition (R3SVD) Algorithm for Low-rank Matrix Approximations*," arXiv:1605.08134, 2016.

TECHNICAL PAPER:

[1] **Yaohang Li**, "*Computational Measure of Uniformity,*" Technical Report 000704, Dept. of Computer Science, Florida State University, 2000.

GRANTS AND CONTRACTS:

National Science Foundation

Yaohang Li, $1,000,000, Co-PI, (PI: Yong-Duan Song), 10/1/2004~9/30/2007

Proposal Title: Biologically-inspired Adaptive and Reconfigurable Systems: Modeling, Synthesis, and Simulation

Army Research Laboratory

Yaohang Li, $600,000, Co-PI, (PI: Yong-Duan Song), 7/1/2004~7/1/2007

Proposal Title: Bio-inspired Control System for Unmanned Grounded Vehicle

Appalachian State University (University of North Carolina, Office of the President)

Yaohang Li, $45,143, PI, 7/1/2004~7/1/2006

Proposal Title: A Consortium to Promote Computational Science and High Performance Computing

Oak Ridge National Laboratory, Department of Energy

Yaohang Li, $22,336, PI, 5/1/2004~5/1/2005

Proposal Title: Protein Structure Prediction Research

University of North Carolina General Administration

Yaohang Li, $50,000, PI, 6/1/2004~6/1/2005

Proposal Title: Building an NCAT Campus Grid

Oak Ridge Associated Universities, Ralph E. Powe Young Faculty Enhancement Award

Yaohang Li, $5,000, PI, 5/1/2005~5/1/2006

Proposal Title: Advanced Global Optimization Approaches for High-Resolution Protein Structure Modeling

North Carolina A&T State University, Futures Venture

Yaohang Li, $15,000, PI, 7/1/2006~7/1/2007

Proposal Title: Improve NC A&T IT Infrastructure with Grid Computing

National Oceanic and Atmospheric Administration

Yaohang Li, $13,500,000, project-PI, (PI: Solomon Bililign), 9/1/2006~8/31/2011

Proposal Title: NOAA Interdisciplinary Scientific Environmental Technology (ISET) Cooperative Research and Education Center

National Security Agency

Yaohang Li, $58,576, Co-PI, (PI: Xiaohong Yuan), 7/1/2007~6/31/2008

Proposal Title: Integrating Software System Security Evaluation into Computer Science Curriculum

National Science Foundation

Yaohang Li, $18,045, PI, (Collaborative PIs: Clayton Ferner, UNC-Wilmington, Barry Wilkinson, UNCC), 7/1/2008~6/30/2010

Proposal Title: Collaborative Research: Enhancing Teaching of Grid Computing to Undergraduate Students by using a Workflow Editor

National Science Foundation

Yaohang Li, $90,000, PI, 9/1/2008~8/31/2009

Proposal Title: A Novel Multi-Scoring Functions Sampling Approach to Improve Protein Modeling Resolution and its Applications in Protein Loop Structure Prediction

National Science Foundation

Yaohang Li, $384,330, co-PI, (PI: Kenneth Flurchick), 9/1/2009~8/31/2012

Proposal Title: MRI/Acq: Proposal for support for the Consortium for Research Computing for the Sciences, Engineering and Technology -CRCSET

National Science Foundation

Yaohang Li, $400,000, PI, 8/1/2009~7/31/2014

Proposal Title: CAREER: Novel Sampling Approaches for Protein Modeling Applications

National Science Foundation

Yaohang Li, $49,990, PI, (co-PIs: Michael Nelson, Desh Ranjan), 1/1/2011~12/31/2011

Proposal Title: Workshop: 2011 NSF CAREER Proposal Writing Workshop

Old Dominion University Research Foundation

Yaohang Li, $17,000, PI, (co-PI: Jiang Li), 5/1/2011~8/1/2011

Proposal Title: Large Scale Manifold Learning and its Applications in Biomedical Research

Old Dominion University Center for Learning and Teaching

Yaohang Li, $2,100, co-PI, (PI: Wu He), 1/1/2013~6/1/2013

Proposal Title: Using the Workflow Technology to Create Secure Software Engineering Scenario-based Workflows for Information Security Education

Old Dominion University Research Foundation

Yaohang Li, $50,000, PI, (co-PIs: Duc Nguyen, Masha Sosonkina, Jin Wang), 1/1/2013~12/31/2013

Proposal Title: Toward Solutions to Big Data Challenges in Multiple Disciplinary Applications

National Science Foundation

Yaohang Li, $11,307, PI, 5/1/2014~7/31/2015

Proposal Title: CAREER: Novel Sampling Approach Protein Modeling – Research Experience for Undergraduates

National Science Foundation

Yaohang Li, $20,000, co-PI, (PI: Alex Zelikovsky), 5/1/2015~4/30/2016 Proposal Title: Travel Support: 11th International Symposium on Bioinformatics Research and Applications

Old Dominion University Research Foundation

Yaohang Li, $13,000, PI, (co-PI: Wu He), 1/1/2016~12/31/2016

Proposal Title: Detecting and Classifying Malware by Novel Biologically Inspired Approaches

Virginia Space Grant Consortium

Yaohang Li, $8,400, PI, (co-PI: Andy Ramlatchan)

Proposal Title: The Machine Learning & Data Science Summer Camp at Old Dominion University

National Science Foundation of China

Yaohang Li, ¥180,000, PI, (co-PI: Min Li), 1/1/2018~12/31/2020

Proposal Title: Randomized Matrix Factorization and its Applications in Protein Structure Modeling

National Science Foundation of China

Yaohang Li, ¥3,000,000, co-PI, (PI: Min Li), 1/1/2019~12/31/2023

Proposal Title: Foundational theory and algorithms on computational analyses of high-throughput proteomics

Southeastern Universities Research Association

Yaohang Li, $47,335, ODU PI, (JLab PI: Nobuo Sato), 4/1/2019~12/31/2019

Proposal Title: QCD Theory & Machine Learning

Jefferson Lab, Department of Energy

Yaohang Li, $122,466 ($25,200 for ODU), ODU PI, (JLab PI: Wally Melnitchouk) 11/1/2019~10/31/2020

Proposal Title: LDRD: Universal Monte Carlo Event Generator

Southeastern Universities Research Association

Yaohang Li, $74,472, PI, (co-PI: Nobuo Sato), 5/1/2020~7/31/2020

Proposal Title: QCD theory and machine learning for global analysis

INVITED TALKS:	**Naval Surface Warfare Center (NSWC), Dam Neck and Dahlgren, VA**
6/2/2020-8/6/2020	10-week Seminar Series, Artificial Intelligence and Data Science
	Electrical and Computer Engineering Department, ODU
3/27/2020	Graduate Seminar, Simulation of electron-proton scattering events by a Feature-Augmented and Transformed Generative Adversarial Network (FAT-GAN)
	Jefferson Lab, Newport News, VA
3/4/2020	Invited Talk, ETHER: Empirically Trained Hadronic Event Regenerator
	Kennesaw State University, Marietta, GA
2/26/2020	Invited Talk, Randomized Linear Algebra and its Applications in Big Data Analysis
	Mathematics Department, ODU
1/24/2020	Data Science Seminar, Simulation of Electron-Proton Scattering Events by a Features-Augmented and Transformed Generative Adversarial Network (FAT-GAN)
	Naval Surface Warfare Center (NSWC), Dam Neck and Dahlgren, VA

5/21-7/23/2019	10-week seminar series, Artificial Intelligence and Data Science
	Mathematics Department, ODU
10/26/2018	Data Science Seminar, Monte Carlo Methods for Numerical Linear Algebra
	Virginia Commonwealth University, Richmond, VA
5/11/2018	Invited Talk, Monte Carlo Methods for Numerical Linear Algebra and their Applications in Bioinformatics
	University of Texas Health Science Center in Houston, Houston, TX
3/27/2018	Invited Talk, Monte Carlo methods for Numerical Linear Algebra and Their applications in Bioinformatics
	Central South University, Changsha, China
6/2017	Invited 4-Week Lecture Series, Randomized Algorithms and Numerical Linear Algebra
	Fudan University, Shanghai, China
7/2/2017	Invited Talk, Randomized Algorithms and Numerical Linear Algebra
	Sun Yat-Sen University, Guangzhou, China
6/30/2017	Invited Talk, Randomized Algorithms and Numerical Linear Algebra
	Tsinghua University, Beijing, China
6/23/2017	Invited Talk, New Methods in Protein Structure Modeling
	Beijing Computational Science Research Center, Beijing, China
6/21/2017	Invited Whole-Day Seminar, Randomized Algorithms and Numerical Linear Algebra
	Central South University, Changsha, China
6/2016	Invited 4-Week Lecture Series, Monte Carlo Methods and Applications
	Tsinghua University, Beijing, China
6/28/2016	Invited Talk, Monte Carlo Methods for Linear Algebra Operations
	Virginia Modeling, Analysis & Simulation Center (VMASC), Suffolk, VA
3/25/2016	Invited Talk, Monte Carlo Methods for Large-Scale Numerical Linear Algebra Problems
	Central South University, Changsha, China
6/18/2016	Invited Talk, New directions in protein structure modeling
	Central South University, Changsha, China
8/18/2015	Invited Talk, New methods in protein structure modeling
	Hefei University of Technology, Hefei, China
7/31/2015	Invited Talk, Revisit of Monte Carlo Methods on Large-Scale Numerical Linear Algebra Problems
	Beijing Computational Science Research Center, Beijing, China
7/29/2015	Invited Talk, New methods in protein structure modeling
	Shanghai Jiao Tong University, Shanghai, China
7/20/2015	Invited Talk, Revisit of Monte Carlo Methods on Large-Scale Numerical Linear Algebra Problems
	National Institute of Standards and Technology, Gaithersburg, MD
11/4/2014	Invited Talk, Revisit of Monte Carlo Methods on Solving Large-Scale Linear Systems
	South China University of Technology, Guangzhou, China
7/28/2014	Invited Talk, *ab initio* Protein Structure Modeling and its Applications
	Department of Modeling, Simulation and Visualization, ODU
4/10/2014	Invited Talk, *ab initio* Protein Structure Modeling and its Applications
	Fisk University, Nashville, TN
4/7/2014	Invited Talk, *ab initio* Protein Structure Modeling and its Applications

	Department of Chemistry, ODU
10/11/2013	Graduate Seminar, *ab initio* Protein Structure Modeling and its Applications
	Frank Reidy Research Center for Bioelectrics, ODU
10/9/2012	Invited Talk, *ab initio* Protein Structure Modeling and its Applications
	Salisbury University, Salisbury, MD
7/24/2012	Invited REU Talk, *ab initio* Protein Structure Modeling and its Applications
	Daniel H. Wagner Associates Inc., Hampton, VA
5/23/2012	Invited Talk, Monte Carlo Methods in Solving Large Linear Systems
	ACM Colloquium, Old Dominion University
11/10/2011	Computer Science Colloquium, Introduction to *ab initio* protein folding
	Department of Electrical & Computer Engineering, ODU
10/1/2010	Graduate Seminar, New Approaches in ab initio Protein Structure Modeling
	Department of Computer Science, Indiana University–Purdue University Indianapolis, IN
3/26/2010	Invited Talk, New Approaches in ab initio Protein Structure Modeling
	Department of Computer Science, Florida State University, Tallahassee, FL
10/30/2009	"Grad Made Good" presentation, "From Seminole to Aggie: The Development of My Academic Career"
	University of North Carolina, Charlotte, NC
11/3/2006	Invited Talk, Hybrid Parallel Tempering/Simulated Annealing and its Applications in *ab initio* Protein Folding
	Partners in Technologies, Oak Ridge Associated Universities, Oak Ridge, TN
4/21/2005	Invited Talk, Parallel Tempering in Rosetta Practice
	AVID LLC, Blacksburg, VA
12/27/2004	Invited Talk, Global Optimization Methods
	IBM, Raleigh, NC
10/15/2004	University Day Presentation, Protein Folding on the Campus Grid
	Oak Ridge National Laboratory, Oak Ridge, TN
1/24/2003	Invited Talk, Grid-based Monte Carlo Applications
	South China University of Technology, Guangzhou, China
6/18/2002	Invited Talk, Grid Computing Infrastructure for Monte Carlo Applications

TEACHING	**Old Dominion University**	**Norfolk, VA**
EXPERIENCE:	**Department of Computer Science, ODU**	
Spring, 2020	CS795/895 Practical Machine Learning and Artificial Intelligence	
Fall, 2019	CS480/580 Introduction to Artificial Intelligence	
Fall, 2018	CS480/580 Introduction to Artificial Intelligence	
Summer, 2018	MSIM580 Introduction to Artificial Intelligence (at NAVAIR)	
Spring, 2018	CS170 Computer Architecture I	
	CS795/895 Advanced Machine Learning: Recommendation Systems	
Fall, 2017	CS480/580 Introduction to Artificial Intelligence	
	CS795/895 Advanced Machine Learning: Protein Modeling	
Summer, 2017	MSIM580 Introduction to Artificial Intelligence (at NAVAIR)	
Spring, 2017	CS170 Computer Architecture I	
Fall, 2016	CS480/580 Introduction to Artificial Intelligence	
	CS170 Computer Architecture I	

Spring, 2016	CS170 Computer Architecture I
Fall, 2015	CS480/580 Introduction to Artificial Intelligence
Spring, 2015	CS170 Computer Architecture I
Fall, 2014	CS480/580 Introduction to Artificial Intelligence
	CS795/895 Advanced Artificial Intelligence
Spring, 2014	CS170 Computer Architecture I
	CS795/895 *De Novo* Protein Structure Modeling
Fall, 2013	CS270 Computer Architecture II
	CS714/814 Monte Carlo Simulations
Spring, 2013	CS170 Computer Architecture I
Fall, 2012	CS270 Computer Architecture II
	CS695/795/895 Monte Carlo Methods and Applications
Spring, 2012	CS170 Computer Architecture I
Fall, 2011	CS795/895 Molecular Modeling and Simulation
	CS270 Computer Architecture II
Spring, 2011	CS695/795 Monte Carlo Simulation
Fall, 2010	CS270 Computer Architecture II
	North Carolina A&T State University Greensboro, NC
	Assistant/Associate Professor, Department of Computer Science
Spring, 2010	COMP450 Operating Systems
	COMP467 Database Design
Fall, 2009	COMP467 Database Design
	COMP690 Introduction to Grid Computing
Spring, 2009	COMP467 Database Design
	COMP750 Distributed Systems
Fall, 2008	COMP476 Networked Computer Systems
	COMP467 Database Design
	COMP690 Wireless Sensor Network
	COMP690 Introduction to Grid Computing
Spring, 2008	COMP467 Database Design
	COMP750 Distributed Systems
Fall, 2007	COMP467 Database Design
	COMP755 Advanced Operating Systems
Spring, 2007	COMP467 Database Design
	COMP690 Fundamental of Natural Computing
Fall, 2006	GEEN163 Introduction to Computer Programming
	COMP755 Advanced Operating Systems
Spring, 2006	COMP790 High Performance Computing and Monte Carlo Methods
	COMP645 Artificial Intelligence
	COMP445 Introduction to Artificial Intelligence
Fall, 2005	COMP755 Advanced Operating Systems
	COMP750 Distributed Systems
Spring, 2005	COMP755 Advanced Operating Systems
	COMP790 High Performance Computing and Monte Carlo Methods
Fall, 2004	COMP750 Distributed Systems

COMP740 Advanced Artificial Intelligence

COMP467 Database Design

Spring, 2004   COMP445 Introduction to Artificial Intelligence

COMP645 Artificial Intelligence

COMP467 Database Design

Fall, 2003   COMP467 Database Design (2 sections)

Florida State University   **Tallahassee, FL**

Instructor, Department of Computer Science

Spring, 2003   CGS3460 FORTRAN for Non-specialist

University of Salzburg   **Salzburg, Austria**

Teaching Assistant, Department of Scientific Computing

Spring, 2002   Graduate course "Concrete Mathematics"

Graduate course "Advanced Topics in Monte Carlo Methods"

STUDENTS GRADUATED:	Daniel Chen	Master's Thesis	Fall, 2004
	William Mirugi	Master's Thesis	Spring, 2005
	Rogelio Roper	Master's Project	Spring, 2005
	Tao Dong	Master's Thesis	Fall, 2005
	Jason Clark	Master's Thesis	Spring, 2006
	Willie Gilchrist	Master's Project	Spring, 2006
	Karlid Bazarri	Master's Project	Spring, 2006
	Lisa Sims	Master's Thesis	Fall, 2006
	Shawn Gunthrop	Master's Project	Spring, 2007
	Zonghong Han	Master's Thesis	Fall, 2007
	Michael Burns	Master's Project	Fall, 2007
	Stephan Hudson	Master's Thesis	Spring, 2008
	Avery Harvey	Master's Project	Spring, 2009
	Douglas Wardell	Master's Thesis	Fall, 2009
	Cheickna Baber	Master's Thesis	Fall, 2009
	Richard Messick	Master's Thesis	Spring, 2010
	Kawana Fuller	Master's Project	Spring, 2010
	Ashraf Yaseen	Ph.D.	Fall, 2014
	Priyank Patel	Master's Project	Summer, 2015
	Hao Ji	Ph.D.	Spring, 2016
	Rohit Lambi	Master's Project	Summer, 2016
	Maha Abdelrasoul	Ph.D.	Spring, 2018
	Tapan Amin	Master's Project	Fall, 2018
	Wessam Elhefnawy	Ph.D.	Spring, 2019
	Bo Zhang	Master's Project	Fall, 2020
CURRENT STUDENTS:	Yasir Alanazi	Ph.D.	
	Manal Almaeen	Ph.D.	
	Andy Ramlatchan	Ph.D.	
	Hind Aldabagh	Ph.D.	
	Ivan Makohon	Ph.D.	
	Tareq Alghamdi	Ph.D.	

Kenneth Diedrich   M.S.

SERVICES:	**Editorial Board**
2019-present	Monte Carlo Methods and Applications
2018-present	Information Discovery and Delivery
	Guest Editor
2016	IEEE Transactions on NanoBioscience, Special Issue on Bioinformatics Research and Applications (Volume 15, Issue 2, March 2016)
2016	BMC Bioinformatics, Special Issue on 11th International Symposium on Bioinformatics Research and Applications (ISBRA '15) (Volume 17 Supplement 8, August 2016)
2015	Bioinformatics Research and Applications, 11th International Symposium, ISBRA2015 Proceedings
	Workshop Organizer
2011	Organizer, NSF CISE CAREER Proposal Writing Workshop
	High School Summer Camp Organizer
2018	Organizer, Machine Learning & Data Science Summer Camp at Old Dominion University, 6/25/2018~7/9/2018
	Program Committee Chair
2015	International Symposium on Bioinformatics Research and Applications (ISBRA2015)
	Workshop Chair
2017	International Symposium on Bioinformatics Research and Applications (ISBRA2017)
2016	Big Data and Cloud Computing in Bioinformatics (BDACCB2016) Workshop in conjunction with IEEE BDCloud2016
	Special Section Organizer
2016	2nd International Conference on Mathematics of Data Science, Norfolk, 2018
	Program Committee Member
2021	ICBCB: IEEE International Conference on Bioinformatics and Computational Biology
2020	ECML-PKDD: The European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases
	ISBRA: International Symposium on Bioinformatics Research and Applications
	ICBCB: IEEE International Conference on Bioinformatics and Computational Biology
2019	NRE: Numerical Reproducibility at Exascale Workshop
	ICBCB: IEEE International Conference on Bioinformatics and Computational Biology
	ISBRA: International Symposium on Bioinformatics Research and Applications
2018	NRE: Numerical Reproducibility at Exascale Workshop
	ICBCB: IEEE International Conference on Bioinformatics and Computational Biology
	ISBRA: International Symposium on Bioinformatics Research and Applications
2017	NRE: Numerical Reproducibility at Exascale Workshop
	ISBRA: International Symposium on Bioinformatics Research and Applications
	BICoB: International Conference on Bioinformatics and Computational Biology
2016	NRE: Numerical Reproducibility at Exascale Workshop
	ISBRA: International Symposium on Bioinformatics Research and Applications
	BICoB: International Conference on Bioinformatics and Computational Biology
	NAS: IEEE International Conference on Networking, Architecture, and Storage
2015	ISMB: Annual International Conference on Intelligent Systems for Molecular Biology
	NAS: IEEE International Conference on Networking, Architecture, and Storage

	BICoB: International Conference on Bioinformatics and Computational Biology	
2014	ISMB: Annual International Conference on Intelligent Systems for Molecular Biology	
	BICoB: International Conference on Bioinformatics and Computational Biology	
	NAS: IEEE International Conference on Networking, Architecture, and Storage	
2013	Parlearning: Workshop on Parallel and Distributed Computing for Machine Learning and Inference Problems	
	NAS: IEEE International Conference on Networking, Architecture, and Storage	
	BICoB: International Conference on Bioinformatics and Computational Biology	
	WorldCIST: World Conference on Information Systems and Technologies	
2012	GlobalHealth: International Conference on Global Health Challenges	
	ICSNC: International Conference on Systems and Networks Communications	
	NAS: IEEE International Conference on Networking, Architecture, and Storage	
	BICoB: International Conference on Bioinformatics and Computational Biology	
2011	NAS: IEEE International Conference on Networking, Architecture, and Storage	
	CSBW: Computational Structural Bioinformatics Workshop	
	BICoB: International Conference on Bioinformatics and Computational Biology	
2010	BADS: International Workshop on Bio-Inspired Algorithms for Distributed Systems	
	MI&E: International Workshop on Medical Informatics and Engineering	
	BADS: International Workshop on Bio-Inspired Algorithms for Distributed Systems	
2009	LAFT: Workshop on Logical Aspects of Fault Tolerance	

UNIVERSITY SERVICES:	**Graduate Program Director**	2017-present
	Department of Computer Science, Old Dominion University	
	Graduate Committee	2016-present
	Department of Computer Science, Old Dominion University	
	Intellectual Property Committee	2019-present
	Office of Research, Old Dominion University	
	Graduate Recruiting Committee	2017-present
	College of Science, Old Dominion University	
	Awards Ad hoc Committee	2018
	College of Science, Old Dominion University	
	IT Personnel Search Committee	2017,16,14,13
	Department of Computer Science, Old Dominion University	
	Faculty Search Committee	2017, 2011
	Department of Computer Science, Old Dominion University	
	Chair Search Committee	2016
	Department of Computer Science, Old Dominion University	
	Faculty Advisor	2013-2014
	ACM student group, Old Dominion University	
	Undergraduate Committee	2010-2016
	Department of Computer Science, Old Dominion University	
	University Undergraduate Research Committee	2016
	Office of Research, Old Dominion University	
	University Research Strategy Plan Committee	2014-2015
	Office of Research, Old Dominion University	
	Computing Facilities Committee	2011-2015

Department of Computer Science, Old Dominion University
Curriculum Committee Chair   2005-2008
Department of Computer Science, North Carolina A&T State University
Curriculum Committee Member   2005-2010
College of Engineering, North Carolina A&T State University
IT Committee Member   2007-2010
Representative of North Carolina A&T State University at SURA Grid
Computational Science and Engineering Program Member   2004-2010
North Carolina A&T State University
Graduate Study Committee Member   2003-2010
North Carolina A&T State University
Curriculum Committee Member   2003-2005
Department of Computer Science, North Carolina A&T State University
Department Webmaster   2003-2005
Department of Computer Science, North Carolina A&T State University

AFFILIATIONS: IEEE
ACM

LANGUAGES: Fluent in English, Chinese, and Cantonese
Can function a little bit in German and Japanese