## **CURRICULUM VITA**

December 2023

NAME: Khaled Rasheed

**ADDRESS:** Department of Computer Science

The University of Georgia Athens, GA 30602-7404

khaled@cs.uga.edu

http://www.cs.uga.edu/~khaled

(706)542-0881 (tel) (706)542-2966 (fax)

**PLACE OF BIRTH:** Egypt

# **EDUCATION:**

Ph.D.	Computer Science	Rutgers University	January 1998
M.S.	Computer Science	Rutgers University	January 1995
B.S.	Computer Science	Alexandria Universit	y June 1990

#### **DISSERTATION:**

"GADO: A Genetic Algorithm for Continuous Design Optimization", Haym Hirsh (advisor).

# **RESEARCH INTERESTS:**

Artificial Intelligence Techniques: Genetic Algorithms, Evolutionary Computation, and Machine Learning

Artificial Intelligence Applications: Engineering Design Optimization, Bioinformatics, Human Activity Recognition, Biomass Yield Prediction

# **POSITIONS:**

Aug. 2000 –	Professor (promoted 8/2017), The University of Georgia, Department of
present	Computer Science, Athens, GA
July 1999 – July	Assistant Research Professor, Rutgers University, Department of
2000	Computer Science, New Brunswick, NJ
Jan. 1998 – June	Research Associate, Rutgers University, Department of Computer
1999	Science, New Brunswick, NJ.
Sept. 1998 – Jan.	Co-Adjutant, Rutgers University, Department of Computer Science, New
1999	Brunswick, NJ.
June 1994 – Dec.	Research Assistant, Rutgers University, Department of Computer
1997	Science, New Brunswick, NJ.
Aug. 1995 – Dec.	Teaching Assistant, Rutgers University, Department of Computer
1995	Science, New Brunswick, NJ.
Aug. 1993 – May	Teaching Assistant, Rutgers University, Department of Computer
1994	Science, New Brunswick, NJ.

Aug. 1992 – May	Teaching Assistant, Iowa State University, Department of Computer
1993	Science, Ames, Iowa.
Oct. 1990 – Aug.	Teaching Assistant, Alexandria University, Department of Computer
1992	Science, Egypt.
June 1990 – Aug.	Computer Consultant, World Health Organization (WHO), Alexandria,
1992	Egypt.
Oct. 1990 – Feb.	Computer Consultant, Egyptian Governmental project for Decision
1991	Support, Alexandria, Egypt.

# **HONORS AND AWARDS:**

- Member of the University of Georgia Teaching Academy (inducted 2019).
- Center for Teaching and Learning Senior Teaching Fellow, University of Georgia, 2019-2020.
- Center for Teaching and Learning "Teacher of the week" recognition, University of Georgia, 2016.
- Faculty Excellence in Teaching award, Computer Science department, University of Georgia, 2012.
- Outstanding Faculty Service award, Computer Science department, University of Georgia, 2011.
- Second Best Paper award in the Twenty-fourth International Conference on Industrial, Engineering and Other Applications of Applied Intelligent Systems (IEA/AIE 2011).
- Nominated for best paper award in *The Genetic and Evolutionary Computation Conference* (GECCO'2005)
- Egyptian National Scholarship for academic excellence, 1985-1990
- Prize of the Egyptian Ministry of Education (third top student, mathematics section nationwide, secondary school final exam 1985)

# **GRANTS:**

# 1. Promoting Economic Resilience and Sustainability of the Eastern US Forests (PERSEUS) (FP00027300)

USDA NIFA, April 1, 2023–March 31, 2028

Proposed amount: \$ 2,714,283 (US), Role: Co-investigator of, Credit: 7%
Application data: July 11, 2022, Funding type: Passarch, Status: Funded

Application date: July 11, 2022, Funding type: Research, Status: Funded

- 2. National Institutes for Health (NIH), "Functional Annotation of Natural and Disease Variants in Tryosine Kinases", Natarajan Kannan (PI), Khaled Rasheed (Co-Investigator), \$1,250,000, 2015 2021.
- 3. GA Power Company, "Solar Technology Master Project", David Gattie (PI), Khaled Rasheed (Co-PI), Don Potter (Co-PI) and Fred Maier (Co-PI), \$213,400, 2015 2018.
- 4. UGA Faculty Research Grant, "Modeling, Evaluation & Design of External Skeletal Fixation Structures", Khaled Rasheed (PI), \$5000, January, 2004 December, 2004.
- 5. National Science Foundation (NSF), "Data Driven Design Optimization in Engineering Using Concurrent Integrated Experiment and Simulation," Doyle Knight (PI), Khaled Rasheed (Co-PI) and Yogesh Jaluria, Gregory Elliott, Noshir Langrana (Co-PIs), \$1,200,000, 2001 2004.

- 6. Rutgers University Subcontract from DARPA Grant. "Self Adaptive GA-Based Design Optimization using Reduced Models", Khaled Rasheed (PI), \$60,000, November 2000 June 2002.
- 7. Defense Advanced Research Projects Agency (DARPA), Department of Defense, "Self-Adaptive Software for Automated Design of Complex Engineering Systems," Saul Amarel (PI), Louis Steinberg (Co-PI), and Khaled Rasheed (Investigator), \$540,000, 1998-2001.
- 8. National Science Foundation (NSF), "Utility-Based Control of Hierarchical Design," Louis Steinberg (PI), Robert Berk (Co-PI), and Khaled Rasheed (Investigator), \$349,000, 1998-2001.
- 9. National Aeronautics and Space Agency (NASA/Ames), "Design Optimization in the Domain of Overset Grid Generation," Saul Amarel (PI), Donald Smith (Co-PI), and Khaled Rasheed (Investigator), \$50,000, 1998-1999.

#### **SUBMITTED GRANTS:**

#### **PROFESSIONAL ACTIVITIES:**

- ❖ Journal Associate Editor:
  - ➤ International Journal on Computer Vision, Machine Learning, and Data Mining (CVMLDM)
- ❖ Journal guest editor:
  - ➤ Soft Computing Journal: special issue on approximation and learning in evolutionary computation (2003)
- ❖ Journal Editorial Board Member:
  - ➤ Applied Intelligence
  - > JSM Computer Science & Engineering
- ❖ Journal reviewer:
  - 1. IEEE Intelligent Systems
  - 2. IEEE Transactions on Evolutionary Computation
  - 3. IEEE Transactions on Systems, Man and Cybernetics (Part A)
  - 4. IEEE/ACM Transactions on Computational Biology and Bioinformatics
  - 5. Journal of Machine Learning Research (JMLR)
  - 6. Machine Learning Journal (MLJ)
  - 7. Journal of Artificial Intelligence Research (JAIR)
  - 8. Artificial Intelligence in Engineering Design and Manufacturing (AIEDAM)
  - 9. International Association for Mathematics and Computers in Simulation (IMACS)
  - 10. Applied Intelligence
  - 11. Soft Computing and Automation Journal
  - 12. Pattern Recognition Letters
  - 13. Aerospace Science and Technology
  - 14. Journal of Computing and Information Science in Engineering (JCISE)
  - 15. Plos One
  - 16. Computational and Structural Biotechnology Journal (CSBJ) (2021)
  - 17. BMC Medical Informatics and Decision Making (2022)
- ❖ Conference Co-Organizer and Panelist:
  - Envisioning 2050 in the Southeast: AI-Driven Innovations in Agriculture (2022)
- **❖** Workshop Organizer:
  - ➤ Genetic and Evolutionary Computation Conference (GECCO'2002) Workshop on Approximation and Learning in Evolutionary Computation.

- ➤ Genetic and Evolutionary Computation Conference (GECCO'2003) Workshop on Learning and Adaptation in Evolutionary Computation.
- Tutorial Organizer:
  - ➤ Genetic and Evolutionary Computation Conference (GECCO'2005) Tutorial on Fitness Approximation in Evolutionary Computation.
- **&** Conference Session Chair:
  - ➤ Int'l. Conf. on Artificial Intelligence (ICAI'2010, 2016)
  - ➤ Int'l. Conf. on Genetic and Evolutionary Methods (GEM'2010, 2013)
  - ➤ The Ninth International Conference on Machine Learning and Applications (ICMLA'2010)
  - ➤ The IMACS World Congress (2009)
  - ➤ Genetic and Evolutionary Computation Conference (GECCO'2002, 2003, 2004, 2005,2008)
  - ➤ The International Multi-conferences in Computer Science (MLMTA'2004)
  - ➤ Third Annual Genetic Programming Conference (GP'98)
- ❖ Program committee member:
  - Genetic and Evolutionary Computation Conference (GECCO'99, 2000, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2013, 2014, 2015, 2016, 2017, 2018, 2019,2020,2021,2022,2023)
  - The Congress on Evolutionary Computation (2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2013, 2014, 2015, 2016, 2017, 2018, 2019,2020)
  - Parallel Problem Solving from Nature (PPSN 2004, 2006, 2012, 2014, 2016, 2018, 2020, 2022)
  - ➤ IASTED International Conference on Artificial Intelligence and Soft Computing (ASC 2009, 2011)
  - European Conference on the Applications of Evolutionary Computation (EvoApplications'2010, 2011)
  - ➤ IASTED International Conference on Computational Bioscience (CompBio 2010)
  - ➤ The European Workshop on Evolutionary Algorithms in Stochastic and Dynamic Environments (2003, 2004, 2005).
  - ➤ International Conference on Machine Learning (ICML'2001)
  - ➤ The 39th Annual ACM Southeast Conference (2001)
- Grant Proposal Reviewer
  - National Science Foundation, 2018.
  - > Oak Ridge Associated Universities, Inc. (ORAU), 2016.
  - Netherlands Organization for Scientific Research, 2008.
  - North Carolina Biotechnology Center, 2005.
- Member of Panels and Evaluation Teams:
  - ➤ Participant in the Information Technology Research (ITR) PI meeting and research assessment at the National Science Foundation 2004.

# **PUBLICATIONS:**

# **Book Chapters:**

1. Dongsheng Che, Qi Liu, Khaled Rasheed and Xiuping Tao, "Decision Tree and Ensemble Learning Algorithms with Their Applications in Bioinformatics", in *Software Tools and Algorithms for Biological Systems*, Springer-Verlag, pp. 191 – 199, 2011.

- 2. Liang Shi and Khaled Rasheed, "A Survey of Fitness Approximation Methods Applied in Evolutionary Algorithms", in *Computational Intelligence in Expensive Optimization Problems*, Springer-Verlag, pp. 3 28, 2010.
- 3. Khaled Rasheed, Xiao Ni and Swaroop Vattam. "Methods for Using Reduced Models to Speed Up Genetic Algorithm Optimization: Informed Operators and Genetic Engineering", in *Knowledge Incorporation in Evolutionary Computation*, Springer-Verlag, 2003.

# **Submitted Book Chapters:**

# **Journal Publications:**

- 4. Guoming Li, Baoming Li, Zhengxiang Shi, Guoyu Lu, Lilong Chai, Khaled M. Rasheed, Prafulla Regmi. "Inter-individual distances and orientations of laying hens under eight stocking densities measured by integrative deep learning techniques", *Poultry Science*, 102(11). 2023
- 5. Iman, Mohammadreza, Hamid Reza Arabnia, and Khaled Rasheed. "A Review of Deep Transfer Learning and Recent Advancements" Technologies 11, no. 2: 40. <a href="https://doi.org/10.3390/technologies11020040">https://doi.org/10.3390/technologies11020040</a>, 2023.
- 6. Jonathan M Vance, Khaled Rasheed, Ali Missaoui, and Frederick W Maier, "Data synthesis for alfalfa biomass yield estimation", *AI* **4.1**, 2023.
- 7. Shrinidhi Adke, Changying Li, Khaled M. Rasheed, and Frederick W. Maier, "Supervised and Weakly Supervised Deep Learning for Segmentation and Counting of Cotton Bolls Using Proximal Imagery", *Sensors* **22(10)**:3688, 2022.
- 8. Christopher D Whitmire, Jonathan M Vance, Hend K Rasheed, Ali Missaoui, Khaled M Rasheed, Frederick W Maier, "Using Machine Learning and Feature Selection for Alfalfa Yield Prediction", *AI* **2.1**, PP 71-88, 2021.
- 9. Soheyla Amirian, Khaled Rasheed, Thiab Taha and Hamid Arabnia, "Automatic Image and Video Caption Generation with Deep Learning: A Concise Review and Algorithmic Overlap", *IEEE Access*, 2020.
- 10. Liang-Chin Huang, Wayland Yeung, Ye Wang, Huimin Cheng, Aarya Venkat, Sheng Li, Ping Ma, Khaled Rasheed, Natarajan Kannan, "Quantitative Structure-Mutation-Activity Relationship Tests (QSMART) model for protein kinase inhibitor response prediction", in *BMC Bioinformatics*. **21(1)**: 520, 2020.
- 11. Rahil Taujale, Aarya Venkat, Liang-Chin Huang, Zhongliang Zhang, Wayland Yeung, Khaled Rasheed, Sheng Li, Arthur S. Edison, Kelley W. Moremen, Natarajan Kannan. Deep evolutionary analysis reveals the design principles of fold A glycosyltransferases. *eLife*, Vol.9, e54532, 2020.
- 12. Akram Farhadi, Joshua J. Chern, Daniel Hirsh, Tod Davis, Mingyoung Jo, Frederick Maier, and Khaled Rasheed, "Intracranial Pressure (ICP) Forecasting in Children Using Dynamic Averaging of Time Series Data", in *Forecasting*, Vol. 1, pp. 47 58, 2019.
- 13. Mohammad Mohebbi, Liang Ding, Russell Malmberg, Cory Momany, Khaled Rasheed, and Liming Cai, "ACCURATE PREDICTION OF HUMAN MIRNA TARGETS VIA GRAPH MODELING OF MIRNA-TARGET DUPLEX", in *Journal of Bioinformatics and Computational Biology*, **18(86)**, doi: 10.1142/S0219720018500130, 2018.
- 14. Khalifeh AlJadda, Mohammed Korayem, Camilo Ortiz, Trey Grainger, John A Miller, Khaled Rasheed, Krys Kochut, William York, Rene Ranzinger, Melody Porterfield, Hao Peng, "Mining Massive Hierarchical Data Using a Scalable Probabilistic Graphical Model" in *Information Sciences*, Vol: 425, pp. 62 75, doi:10.1016/j.ins.2017.10.014, 2018.

- 15. Daniel McSkimming, Khaled Rasheed, and Natarajan Kannan, "Classifying kinase conformations using a machine learning approach", in *BMC Bioinformatics*; **18(86)**, doi:10.1186/s12859-017-1506-2, 2017.
- 16. Amna Basharat, Khaled Rasheed and I. Budak Arpinar, "A Conceptual Framework For Linked Open Islamic Knowledge", *The International Journal on Islamic Applications in Computer Science and Technology (IJASAT)*, **4(2)**, pp. 16 25, 2016.
- 17. ManChon U, Eric Talevich, Samiksha Katiyar, Khaled Rasheed, and Natarajan Kannan, "Prediction and Prioritization of Rare Oncogenic Mutations in the Cancer Kinome Using Novel Features and Multiple Classifiers", in *PLOS Computational Biology*, **10(4)**: e1003545. doi:10.1371/journal.pcbi.1003545, 2014.
- 18. Rahila Umer, Sohrab Khan, Aftab Ahmed, Khaled Rasheed and Tianming Liu, "Prediction of Possible conversion from MCI to AD using Machine learning", in the *International Journal of Basic and Applied Sciences*, **1(2)**, pp. 100-108, 2012.
- 19. Dongsheng Che, C. Hockenbury, R. Marmelsteinand, and Khaled Rasheed. "Classification of genomic islands using decision trees and their ensemble algorithms", *BMC Genomics*, **11**(suppl **2**):S1, 2010.
- 20. Bo Qian and Khaled Rasheed, "Foreign Exchange Market Prediction with Multiple Classifiers", *Journal of Forecasting*, **29(3)**, pp. 271 284, 2010.
- 21. Hamid R. Arabnia, Junfeng Qu, Yinglei Song, Khaled Rasheed, and Byron Jeff, "Clustering Time Series Online in a Transformed Space", *The Ubiquitous Computing and Communication Journal (UBICC; http://www.ubicc.org)*, Vol. **3(7)** pages, 2008.
- 22. Jaymin Kessler, Khaled Rasheed and Budak Arpinar, "Using Genetic Algorithms to Reorganize Superpeer Structure in Peer to Peer Networks", *Applied Intelligence: The International Journal of Artificial Intelligence, Neural Networks and Complex Problem-Solving Technologies*, **26(1)**, pp. 35 52, 2007.
- 23. Bo Qian and Khaled Rasheed, "Stock Market Prediction with Multiple Classifiers", *Applied Intelligence: The International Journal of Artificial Intelligence, Neural Networks and Complex Problem-Solving Technologies*, **26(1)**, pp. 25 33, 2007.
- 24. Deepti Chafekar, Liang Shi, Khaled Rasheed and Jiang Xuan, "Constrained Multi-objective GA Optimization Using Reduced Models", *IEEE Transactions on Systems, Man and Cybernetics*, **35(2)**, pp. 261 265, 2005.
- 25. Khaled Rasheed, Xiao Ni and Swaroop Vattam, "Comparison of Methods for Developing Dynamic Reduced Models for Design Optimization", *The Soft Computing Journal*, (online) 2003, (in print) **9(1)**, pp. 29 37, 2005.
- 26. Jack Smith, Doyle Knight, Joachim Kohn, Khaled Rasheed and Norbert Weber, "Using Surrogate Modeling in the Prediction of Fibrinogen Adsorption onto Polymer Surfaces", *Journal of Chemical Information and Computer Sciences*, **44**:1088—1097, 2004.
- 27. L. Wu, W.D. Potter, K. Rasheed, J. Ghent, D. Twardus, H. Thistle and M. Teske, "Nature Inspired Heuristics in Aerial Spray Deposition Management", *The Journal of Applied Systems Studies*, **4(2)**, 2003.
- 28. Anil Bahuman, Khaled Rasheed, and Benjamin Bishop, "Evolutionary Design Automation of VLSI Standard Cells", *The Journal of Applied Systems Studies*, **4(2)**, 2003.
- 29. Khaled Rasheed and Haym Hirsh, "Learning to be Selective in Genetic-Algorithm-Based Design Optimization", *Artificial Intelligence for Engineering Design, Analysis and Manufacturing*, **13:**157-169, 1999.
- 30. Michael Blaize, Doyle Knight, and Khaled Rasheed, "Automated Optimal Design of Two Dimensional Supersonic Missile Inlets", *The Journal of Propulsion and Power*, **14**(6): 890-898, 1998.
- 31. Khaled Rasheed, Haym Hirsh and Andrew Gelsey, "A Genetic Algorithm for Continuous Design Space Search", *Artificial Intelligence in Engineering*, **11**(3):295-305, 1997.

- 32. G.-C. Zha, D. Smith, M. Schwabacker, K. Rasheed, A. Gelsey, D. Knight and Martin Hass, "High Performance Supersonic Missile Inlet Design Using Automated Optimization", *Journal of Aircraft*, **34**(6):697-705, 1997.
- 33. A. Gelsey, D. Smith, M. Schwabacker, K. Rasheed, and K. Miyake, "A Search Space Toolkit", *Decision Support Systems*, **18**:341-356, 1996.

# **Submitted Journal Publications:**

## **Conference Publications:**

- 34. Afsaneh Shams, Drew Becker, Kyle Becker, Soheyla Amirian and Khaled Rasheed." Evolving Efficient CNN Based Model for Image Classification". Proceedings of the *International Conference on Artificial Intelligence (ICAI'23)*, 2023.
- 35. Abolfazl Farahani, Navid Hashemi Tonekaboni, Khaled Rasheed, and Hamid R. Arabnia. "CLPL: A Self-supervised Contrastive Learning Pseudo-Labeling Framework for Tabular Data". In proceedings of the *International Conference on Computational Science and Computational Intelligence*, 2022.
- 36. Enas E. Alkhoshi, Khaled M. Rasheed, Hamid R. Arabnia, Frederick W. Maier, and Jennifer L. Gay. "Comparisons of Machine Learning Methods for Human Activity Recognition Using Pseudo-Free-Living Data". In proceedings of the *International Conference on Computational Science and Computational Intelligence*, 2022.
- 37. Abolfazl Farahani, Navid Hashemi Tonekaboni, Khaled Rasheed, and Hamid R. Arabnia. "HPGER: Integrating Human Perception into Group Emotion Recognition". In proceedings of the *International Conference on Computational Science and Computational Intelligence*, 2022.
- 38. Mohammadreza Iman, John A. Miller, Khaled Rasheed, Robert M. Branch, and Hamid R. Arabnia. "EXPANSE: A Continual and Progressive Learning System for Deep Transfer Learning". In proceedings of the *International Conference on Computational Science and Computational Intelligence*, 2022.
- 39. Mehdi Assefi, Mehdi Bahrami, Sarthak Arora, Thiab Taha, Hamid R. Arabnia, Khaled Rasheed and Wei-Peng Chen. "An Intelligent Data-Centric Web Crawler Service for API Corpus Construction at Scale". In *Proceedings of The IEEE International Conference on Web Services (ICWS'22)*, 2022.
- 40. Farzan Shenavarmasouleh, Farid Ghareh Mohammadi, Khaled M. Rasheed, and Hamid R. Arabnia. "Recent Applications of Deep Learning in Health Informatics: A Review". In *Proceedings of The 8th International Conference on Health Informatics & Medical Systems (HIMS'22)*, 2022. (Acceptance rate: 19%)
- 41. Sahar Voghoei, James M. Byars, Khaled M. Rasheed, and Hamid R. Arabnia. "Decoding the Alphabet Soup of Degrees in the United States Postsecondary Education System Through Hybrid Method: Database and Text Mining". Transactions on Computational Science & Computational Intelligence (accepted 2021)
- 42. Farid Ghareh Mohammadi, Farzan Shenavarmasouleh, Khaled Rasheed, Thiab Taha, M. Hadi Amini, Hamid R. Arabnia. "The Application of Evolutionary and Nature Inspired Algorithms in Data Science and Data Analytics". in *Proceedings of The International Conference on Computational Science and Computational Intelligence (CSCI'21)*, 2021.
- 43. Jonathan M. Vance, Christopher D. Whitmire, Hend K. Rasheed, Christian Adkins, Ali Missaoui, Khaled M. Rasheed, and Frederick W. Maier. "Comparing Machine Learning Techniques for Alfalfa Biomass Yield Prediction". *In Proceedings of The 19th International Conference on Scientific Computing*; (CSC'2021), 2021

- 44. Amirian, Soheyla, Thiab R. Taha, Khaled Rasheed, and Hamid R. Arabnia, "Generative Adversarial Network Applications in Creating a Meta-Universe", in *Proceedings of The International Conference on Computational Science and Computational Intelligence (CSCI'21)*, 2021.
- 45. Amirian, Soheyla, Thiab R. Taha, Khaled Rasheed, and Hamid R. Arabnia, "An Integrated Approach for Video Captioning and Applications", The 2021 World Congress in Computer Science, Computer Engineering, and Applied Computing (CSCE'21), 2021.
- 46. Soheyla Amirian, Khaled Rasheed, Thiab R. Taha, and Hamid R. Arabnia. "Automatic Generation of Descriptive Titles for Video Clips Using Deep Learning". The *International Conference on Artificial Intilligence (ICAI'20)*, 2020.
- 47. Soheyla Amirian, Abolfazl Farahani, Hamid R. Arabnia. Khaled Rasheed, and Thiab R. Taha. "The use of video captioning for fostering physical activity". In *Proceedings of The International Conference on Computational Science and Computational Intelligence (CSCI'20)*, 2020.
- 48. Abolfazl Farahani, Sahar Voghoei, Khaled Rasheed, and Hamid R. Arabnia. "A Brief Review of Domain Adaptation". The *International Conference on Information & Knowledge Engineering (IKE'20)*, 2020.
- 49. Abolfazl Farahani, Behrouz Pourshojae, Khaled Rasheed, and Hamid R. Arabnia. "A Concise Review of Transfer Learning". In *Proceedings of The International Conference on Computational Science and Computational Intelligence (CSCI'20)*, 2020.
- 50. Mohammadreza Iman, Amy Giuntini, Hamid Reza Arabnia, and Khaled Rasheed, "A Comparative Study of Machine Learning Models for Tabular Data Through Challenge of Monitoring Parkinson's Disease Progression Using Voice Recordings". In *Proceedings of The 6th International Conference on Health Informatics & Medical Systems (HIMS'20)*, 2020.
- 51. S Amirian, K Rasheed, TR Taha, and HR Arabnia, "Image Captioning with Generative Adversarial Network", In *Proceedings of the International Conference on Computational Science and Computational Intelligence (CSCI)*, 2019.
- 52. S Amirian, K Rasheed, TR Taha, and HR Arabnia, "A Short Review on Image Caption Generation with Deep Learning". In *Proceedings of the International Conference on Image Processing, Computer Vision, and Pattern Recognition (IPCV'19)*, 2019.
- 53. Omar Alobaid, Lakshmish Ramaswamy and Khaled Rasheed, "A Machine Learning Approach for Identifying Soccer Moves Using an Accelerometer Sensor". In *Proceedings of the International Symposium on Artificial Intelligence (CSCI'18-ISAI)*, 2018.
- 54. Delaram Yazdansepas, Nitin Saroha, Lakshmish Ramaswamy, and Khaled Rasheed, "Towards Efficient & Real-time Human Activity Recognition using Wearable Sensors: A Shapelet-based Pattern Matching Approach". In *Proceedings of the 13th EAI International Conference on Body Area Networks (BODYNETS' 2018)*, 2018.
- 55. Ewan Wright, Qiang Hao, Khaled Rasheed and Yan Liu, "Feature Selection of Post-Graduation Income of College Students in the United States". In *Proceedings of the 2018 International Conference on Social Computing, Behavioral-Cultural Modeling & Prediction and Behavior Representation in Modeling and Simulation (SBP-BRiMS'18)*, pp. 38 45, 2018.
- 56. Liang Wang and Khaled Rasheed, "Stock Ranking with Market Microstructure, Technical Indicators and News". In *Proceedings of the 2018 Int'l. Conf. on Artificial Intelligence (ICAI'18)*", pp. 322 328, 2018. (Acceptance rate: 21%)
- 57. Omar Alobaid and Khaled Rasheed, "Prayer Activity Recognition Using an Accelerometer Sensor". In *Proceedings of the 2018 Int'l. Conf. on Artificial Intelligence (ICAI'18)*, pp. 271 277, 2018. (Acceptance rate: 21%)

- 58. Pan Huang, Amna Basharat, Usmnan Nisar and Khaled Rasheed, "Interlinking Hadith Based on Multilingual Text Similarity Analysis". In *Proceedings of the 2018 Int'l. Conf. on Artificial Intelligence (ICAI'18)*, pp. 377 383, 2018. (Acceptance rate: 21%)
- 59. Akram Farhadi, Joshua J. Chern, Daniel Hirsh, Tod Davis, Joe Ming, Jennifer L. Wheelus, Frederick Maier, and Khaled Rasheed, "Predicting Intracranial Pressure (ICP) in Children Using Regression". In *Proceedings of the Southern Data Science Conference (SDSC'18)*, 2018.
- 60. William Sanders, Chris Barrick, Frederick Maier and Khaled Rasheed, "Solar Radiation Prediction Improvement Using Weather Forecasts". In *Proceedings of the 16th IEEE International Conference On Machine Learning And Applications (ICMLA'17)*, 2017.
- 61. Anzah Niazi, Delaram Yazdansepas, Jennifer Gay, Frederick Maier, Lakshmish Ramaswamy, Khaled Rasheed and Matthew Buman, "Statistical Analysis of Window Sizes And Sampling Rates in Human Activity Recognition". In *Proceedings of the International Conference on Health Informatics (HEALTHINF'17)*, 2017.
- 62. Mohammad Mohebbi, Liang Ding, Russell L. Malmberg, Cory Momany, Khaled Rasheed and Liming Cai, "Accurate Prediction of Human miRNA Targets via Graph Modeling of miRNA-Target Duplex". In *Proceedings of 6th IEEE International Conference on Computational Advances in Bio and Medical Sciences, (ICCABS'16)*, 2016.
- 63. Anzah Niazi, Delaram Yazdansepas, Jennifer Gay, Frederick Maier, Lakshmish Ramaswamy, Khaled Rasheed and Matthew Buman, "A Hierarchical Meta-Classifier for Human Activity Recognition". *Proceedings of the IEEE International Conference on Machine Learning and Applications (ICMLA' 2016)*, 2016.
- 64. Amna Basharat, Khaled Rasheed and I. Budak Arpinar, "Harnessing Crowds and Experts for Semantic Annotation of the Qur'an". Poster session of *the 15th International Semantic Web Conference (ISWC 2016)*, 2016. (Poster).
- 65. Delaram Yazdansepas, Anzah Niazi, Jennifer L. Gay, Frederick W. Maier, Lakshmish Ramaswamy, Khaled Rasheed, and Matthew P. Buman, "A Multi-Featured Approach for Wearable Sensor-based Human Activity Recognition". *Proceedings of the IEEE International Conference on Healthcare Informatics (ICHI' 2016)*, pp. 423 431, 2016.
- 66. Pan Huang, Amna Basharat and Khaled Rasheed, "Analysis of the Effect of Distance Metric Across Languages on Verse Similarity in The Qur'An", in *Proceedings of the 2016 Int'l. Conf. on Artificial Intelligence (ICAI'2016)*", pp. 144 150, 2016. (Acceptance rate: 24%)
- 67. Haosha Wang. Khaled Rasheed. And Joshua De Han, "Style-Me, An Experimental AI Fashion Stylist", in *Proceedings of the 29<sup>th</sup> International Conference on Industrial Engineering & Other Applications of Applied Intelligent Systems*, (*IEA/AIE 2016*), pp. 553 561, 2016.
- 68. Amna Basharat, Budak Arpinar, and Khaled Rasheed, "Leveraging Crowdsourcing for the Thematic Annotation of the Qur'an". Poster session of *the 25th International World Wide Web Conference*, pp. 13 14, 2016. (Poster Acceptance Rate: 40%)
- 69. Cameron Hamilton, Shervin Shahriari and Khaled Rasheed, "Eye State Prediction from EEG Data Using Boosted Rotational Forests", in *Proceedings of the International Conference on Machine Learning and Applications (ICMLA 2015)*, 2015. (Poster)
- 70. Amna Basharat, Khaled Rasheed and Budak Arpinar, "Towards Linked Open Islamic Knowledge using Human Computation and Crowdsourcing", in *Proceedings of the third Int'l. Conf. on Islamic Application in Computer Science and Technologies (IMAN'2015)*", 2015.
- 71. Amna Basharat, Delaram Yasdansepas and Khaled Rasheed, "Comparative Study of Verse Similarity for Multi-lingual Representations of the Qur'an", in *Proceedings of the 2015 Int'l. Conf. on Artificial Intelligence (ICAI'2015)*", pp. 336 342, 2015. (Acceptance rate: 27%)

- 72. Aardra Ambili and Khaled Rasheed, "Automated scoring of Levels of Integrative Complexity using Machine Learning and Natural Language Processing", in *Proceedings of the 2015 Int'l. Conf. on Artificial Intelligence (ICAI'2015)*", pp. 323 327, 2015. (Acceptance rate: 27%)
- 73. Aardra Ambili and Khaled Rasheed, "Automated scoring of the Level of Integrative Complexity from Text using Machine Learning", in *Proceedings of the International Conference on Machine Learning and Applications (ICMLA 2014)*, pp. 300 305, 2014.
- 74. Haosha Wang and Khaled Rasheed, "Artificial Intelligence in Clothing Fashion", in *Proceedings of the 2014 Int'l. Conf. on Artificial Intelligence (ICAI'2014)*", pp. 484 490, 2014. (Acceptance rate: 29%)
- 75. Shu Zhang, Roi Ceren and Khaled Rasheed, "Evolmusic: A Prefernce Learning Accompanist", in *Proceedings of the 2014 Int'l. Conf. on Genetic and Evolutionary Methods (GEM'2014)*', pp. 34 40, 2014. (Acceptance rate: 29%)
- 76. Shu Zhang, C. Thomas Bailey and Khaled Rasheed, "Evac: An Evolutionary Accompanist", in *Proceedings of the 2013 Int'l. Conf. on Genetic and Evolutionary Methods (GEM'2013)*, pp. 69 75, 2013. (Acceptance rate: 31%)
- 77. Xuewei Qi, Khaled Rasheed, Ke Li and W. Don Potter, "A Fast Parameter Setting Strategy for Particle Swarm Optimization and Its Application in Urban Water Distribution Network Optimal Design", in *Proceedings of the 2013 Int'l. Conf. on Genetic and Evolutionary Methods (GEM'2013)*, pp. 53 59, 2013. (Acceptance rate: 31%)
- 78. Tomasz Oliwa and Khaled Rasheed, "An Overlapping Variable Linkage Benchmark Suite", in *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2013 Companion)*, pp. 127-128, 2013. (Poster)
- 79. Ganesh Bonde and Khaled Rasheed, "Extracting the Best Features for Predicting Stock Prices Using Machine Learning", in *Proceedings of the 2012 Int'l. Conf. on Artificial Intelligence (ICAI'2012)*, pp. 222 229, 2012. (Acceptance rate: 28%)
- 80. Ganesh Bonde and Khaled Rasheed, "Stock Price Prediction Using Genetic Algorithms and Evolution Strategies", in *Proceedings of the 2012 Int'l. Conf. on Genetic and Evolutionary Methods (GEM'2012)*, pp. 10 15, 2012. (Acceptance rate: 29%)
- 81. Tomasz Oliwa and Khaled Rasheed, "A Surrogate-assisted and Informed Linkage Aware Genetic Algorithms", in *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2012 Companion)*, pp. 1467-1468, 2012. (Poster)
- 82. Tomasz Oliwa and Khaled Rasheed, "A Surrogate-assisted Linkage Inference Approach in Genetic Algorithms", in *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2011)*, pp. 997-1004, 2011. (Acceptance rate: 38%)
- 83. ManChon U, Chiahsun Ho Shelby Funk and Khaled Rasheed, "GART: A Genetic Algorithm based Real Time System Scheduler", in *Proceedings of the IEEE Congress on Evolutionary Computation (CEC' 2011)*, pp. 886-893, 2011.
- 84. Muthukumaran Chandrasekaran, Karthik Nadig and Khaled Rasheed, "Evolving Efficient Sensor Arrangement and Obstacle Avoidance Control Logic for a Miniature Robot", in *Proceedings of the Twenty-fourth International Conference on Industrial, Engineering and Other Applications of Applied Intelligent Systems (IEA/AIE 2011)*, pp. 347-356, 2011. [second best paper award]
- 85. Boseon Byeon and Khaled Rasheed, "Bayesian Networks and Genetic Algorithms for Promoter Recognition", in *Proceedings of the IASTED International Conference on Computational Bioscience (Compbio 2010)*, pp. 593 598, 2010.
- 86. Boseon Byeon and Khaled Rasheed, "Selection of Classifier and Feature Selection Method for Microarray Data", in *Proceedings of the Ninth International Conference on Machine Learning and Applications (ICMLA 2010)*, pp. 534 539, 2010. (Acceptance rate: 44%)

- 87. ManChon U, and Khaled Rasheed, "A Relative Tendency Based Stock Market Prediction System", in *Proceedings of the Ninth International Conference on Machine Learning and Applications (ICMLA 2010)*, pp. 949 953, 2010. (Short paper)
- 88. ManChon U, Vasim Mahamuda, and Khaled Rasheed, "On the Scalability of Supervised Learners in Metagenomics", in *Proceedings of the Ninth International Conference on Machine Learning and Applications (ICMLA 2010)*, pp. 803 807, 2010. (Short paper)
- 89. Vasim Mahamuda, ManChon U and Khaled Rasheed, "Application of Machine Learning Algorithms for Binning Metagenomic Data", in *Proceedings of the International Conference on Bioinformatics and Computational Biology (BIOCOMP'2010)*, pp. 68 74, 2010. (Acceptance rate: 27%)
- 90. Tomasz Oliwa and Khaled Rasheed, "A Machine Learning Approach for Sensitivity Inference in Genetic Algorithms", in *Proceedings of the 2010 Int'l. Conf. on Genetic and Evolutionary Methods (GEM'2010)*, pp. 36 41, 2010. (Acceptance rate: 29%)
- 91. Boseon Byeon and Khaled Rasheed, "Using Genetic Algorithms for Simultaneous Noise Removal and Feature Selection in Classification and Regression Problems", in *Proceedings of the Int'l Conf. on Artificial Intelligence (ICAI'09)*, pp. 304 310, 2009. (Acceptance rate: 28%)
- 92. Dongsheng Che, Cory Hockenbury, Robert Marmelstein and Khaled Rasheed, "Classification of Genomic Islands Using Decision-tree Based Algorithms", in *Proceedings of The International Conference on Bioinformatics and Computational Biology* (BIOCOMP'09), pp. 252 258, 2009. (Acceptance rate: 27%)
- 93. Osama Al-Haj Hassan, Lakshmish Ramazwamy, John Miller, Khaled Rasheed, E. Rodney Canfield; "Replication in Overlay Networks: A Multi-objective Optimization Approach", in *Proceedings of the International Conference on Collaborative Computing: Networking, Applications and Work-sharing*, Florida, USA, pp. 512 518, 2008.
- 94. Cesar Koirala and Khaled Rasheed, "Comparison of the Effects of Morphological and Ontological Information on Text Categorization", in *Proceedings of the Seventh International Conference on Machine Learning and Applications (ICMLA'08)*, pp. 783 786, 2008. (Short paper)
- 95. Boseon Byeon and Khaled Rasheed, "Simultaneously Removing Noise and Selecting Relevant Features for High Dimensional Noisy Data", in *Proceedings of the Seventh International Conference on Machine Learning and Applications (ICMLA'08)*, pp. 147 152, 2008. (Acceptance rate: 50%)
- 96. Liang Shi and Khaled Rasheed, "ASAGA: An Adaptive Surrogate-Assisted Genetic Algorithm", in *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2008)*, pp. 1049 1056, 2008. (Acceptance rate: 42%)
- 97. Glenn F. Matthews and Khaled Rasheed, "Temporal Difference Learning for Nondeterministic Board Games", in *Proceedings of the Int'l Conf. on Artificial Intelligence (ICAI'08) and Proceedings of the Int'l Conf. on Machine Learning; Models, Technologies and Applications (MLMTA'08)*, USA, pp. 800 806, 2008. (Acceptance rate: 27%)
- 98. David Luper, Muthukumaran Chandrasekaran, Khaled Rasheed, and Hamid Arabnia, "Path Normalcy Analysis Using Nearest Neighbor Outlier Detection", in *Proceedings of the Int'l Conf. on Artificial Intelligence (ICAI'08) and Proceedings of the Int'l Conf. on Machine Learning; Models, Technologies and Applications (MLMTA'08)*, USA, pp. 776 783, 2008. (Acceptance rate: 27%)
- 99. Boseon Byeon, Khaled Rasheed, and Prashant Doshi "Enhancing the Quality of Noisy Training Data Using a Genetic Algorithm and Prototype Selection", in *Proceedings of the Int'l Conf. on Artificial Intelligence (ICAI'08) and Proceedings of the Int'l Conf. on Machine Learning; Models, Technologies and Applications (MLMTA'08)*, USA, pp. 821 827, 2008. (Acceptance rate: 27%)

- 100. Junfeng Qu, Hamid R. Arabnia, Yinglei Song, Khaled Rasheed, and Jack E. Houston, "Time Series Similarity Matching with a New Distance Measure", in *Proceedings of 2007 Int'l. Conf. on Information and Knowledge Engineering (IKE'07)*, USA, ISBN #: 1-60132-050-7, pp. 183 189, 2007. (Acceptance rate: 30%)
- 101. Chongshan Zhang and Khaled Rasheed, "Improving GA Performance Using Relative Fitness", in *Proceedings of the 2007 Int'l. Conf. on Genetic and Evolutionary Methods (GEM'07)*, USA, pp. 31 37, 2007. (Acceptance rate: 27%)
- 102. Sergey Fogelson, Khaled Rasheed, Xiangxue Guo, and Jan Mrazek, "Comparing Machine Learning Techniques in Predicting Translation Start Sites in Prokaryotic Genomes", in *Proceedings of the Int'l Conf. on Machine Learning; Models, Technologies and Applications (MLMTA'07)*, USA, pp. 85 89, 2007. (Acceptance rate: 32%)
- 103. Chongshan Zhang and Khaled Rasheed, "Improving GA Search Reliability Using Maximal Hyper-Rectangle Analysis", in *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2005)*, pp. 1185 1192, 2005. (Acceptance rate: 46.1%) [nominated for a best paper award]
- 104. Dongsheng Chi, Yinglei Song and Khaled Rasheed, "MDGA: Motif Discovery Using a Genetic Algorithm", in *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2005)*, pp. 447 452, 2005. (Acceptance rate: 46.1%)
- 105. Bo Qian and Khaled Rasheed, "Hurst Exponent and Financial Market Predictability", in *Proceedings of the IASTED Conference on Financial Engineering and Applications (FEA 2004)*, pp. 203 209, November, 2004.
- 106. Jack Smith, Doyle Knight, Joachim Kohn, Norbert Weber, Khaled Rasheed, Sascha Abramson, "Molecular-Scale Properties of Biomaterials Relevant to Protein Adsorption and Cell Growth Using Data Mining of Combinatorial Libraries of Polymers", in The 7<sup>th</sup> World Biomaterials Congress, 2004.
- 107. Doyle Knight, Jack Smith, Norbert Weber, Joachim Kohn, Khaled Rasheed, "Prediction of Fibrinogen Adsorption on Polymer Surfaces Using an Artificial Neural Network", in The 7<sup>th</sup> World Biomaterials Congress, 2004. (poster)
- 108. Ramyaa, Congzhou He, and Khaled Rasheed, "Using Machine Learning Techniques for Stylometry", in *Proceedings of the International Conference on Machine Learning; Models, Technologies and Applications (MLMTA'2004)*, pp. 897-903, 2004.
- 109. Ning Suo, Khaled Rasheed, Don Potter and Dennis Aron, "Machine Learning Techniques for the Evaluation of External Skeletal Fixation Structures", in *Proceedings of the International Conference on Mathematics and Engineering Techniques in Medicine and Biological Sciences (METMBS '04)*, pp. 378 384, 2004.
- 110. Jack Smith, Doyle Knight, Joachim Kohn, Khaled Rasheed, Norbert Weber and Sascha Abramson, "Using Non-Linear Regression to Predict Bioresponse in a combinatorial Library of Biodegradable Polymers", in *Proceedings of the Material Research Society Fall Meeting* 2003, Vol. 804, Paper No. JJ5.7, 2003.
- 111. Jacob Martin and Khaled Rasheed, "Using Singular Value Decomposition to Improve a Genetic Algorithm's Performance", in *Proceedings of the Congress on Evolutionary Computation (CEC'2003)*, pp. 1612-1617, 2003.
- 112. Deepti Chafekar, Jiang Xuan and Khaled Rasheed, "Constrained Multi-objective Optimization Using Steady State Genetic Algorithms", in *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2003)*, pp. 813-824, 2003 (Acceptance rate 46.5%).
- 113. D. Knight, G. Elliot, Y. Jaluria, N. Langrana and K. Rasheed, "Automated Optimal Design Using Concurrent Intagrated Experiment and Simulation", in *AIAA/ISSMO Symposium on Multidisciplinary Analysis and Optimization*, AIAA Paper No. 2002-5636, 2002.

- 114. Khaled Rasheed, Swaroop Vattam and Xiao Ni, "Comparison of Methods for Using Reduced Models to Speed Up Design Optimization", in *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2002)*, pp. 1180-1187, 2002. (Acceptance rate 49.6%)
- 115. L. Wu, W.D. Potter, K. Rasheed, J. Ghent, D. Twardus, H. Thistle and M. Teske, "A Comparison of Genetic Algorithm Methods in Aerial Spray Deposition Management", in *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2002)*, p. 1274 (poster), 2002.
- 116. Anil Bahuman, Benjamin Bishop and Khaled Rasheed, "Automated Standard Cell Synthesis Using Genetic Algorithms", in *Proceedings of the IEEE Computer Society Annual Symposium on VLSI*, pp. 141-150, 2002.
- 117. L. Wu, W.D. Potter, K. Rasheed, J. Ghent, D. Twardus, H. Thistle and M. Teske, "Improving the Genetic Algorithm Performance in Aerial Spray Deposition Management,", in *Proceedings of the IEEE Southeast Conference*, pp. 306-311, 2002.
- 118. Khaled Rasheed, Xiao Ni and Swaroop Vattam, "Comparison of Methods for Developing Dynamic Reduced Models for Design Optimization", in *Proceedings of the Congress on Evolutionary Computation (CEC'2002)*, pp. 390-395, 2002.
- 119. Anil Bahuman, Khaled Rasheed and Benjamin Bishop, "An Evolutionary Approach for VLSI Standard Cell Design", in *Proceedings of the Congress on Evolutionary Computation (CEC'2002)*, pp. 431-436, 2002.
- 120. Benjamin Bishop, Khaled Rasheed, and Anil Bahuman, "VLSI Standard Cell Design Using Genetic Algorithms", in *Proceedings of the 39<sup>th</sup> Annual ACM Southeast Conference*, pp. 44-45, 2001.
- 121. Gerald Carrier, Doyle Knight, Khaled Rasheed, and Xavier Montazel, "Multi-criteria Design Optimization of a Two dimensional Supersonic Inlet", *The 39th AIAA Aerospace Sciences Meeting and Exhibit*, AIAA Paper No. 2001-1064, 2001.
- 122. Khaled Rasheed and Haym Hirsh, "Informed operators: Speeding up genetic-algorithm-based design optimization using reduced models", in *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2000)*, pp. 628-635, 2000. (Acceptance rate 47.3%)
- 123. Khaled Rasheed, "An Incremental-Approximate-Clustering Approach for Developing Dynamic Reduced Models for Design Optimization", in *Proceedings of the Congress on Evolutionary Computation (CEC'2000)*, pp. 986-993, 2000.
- 124. Louis Steinberg and Khaled Rasheed, "Optimization by Searching a Tree of Populations", in *Proceedings of the Genetic and Evolutionary Computation Conference (GECCOC'99)*,, pp. 1723-1730, 1999. (Acceptance rate 53.4%)
- 125. Khaled Rasheed and Brian Davison, "Effect of Global Parallelism on the Behavior of a Steady State Genetic Algorithm for Design Optimization", in *Proceedings of the Congress on Evolutionary Computation (CEC'99)*, pp. 534-541, 1999.
- 126. Khaled Rasheed, "Guided Crossover: A New Operator for Genetic-Algorithm-Based Optimization", in *Proceedings of the Congress on Evolutionary Computation (CEC'99)*, pp. 1535-1541, 1999.
- 127. Christophe Bourdeau, Gerald Carrier, Doyle Knight and Khaled Rasheed, "Three-dimensional Optimization of Supersonic Inlets", *The 35th AIAA/ASME/SAE/ASEE Joint Propulsion Conference*, AIAA Paper No. 99-2108, 1999.
- 128. Khaled Rasheed, "An Adaptive Penalty Approach for Constrained Genetic Algorithm Optimization", in *Proceedings of the Third Annual Conference on Genetic Programming (GP-98)/Symposium on Genetic Algorithms (SGA-98)*, pp. 584-590, 1998.

- 129. Khaled Rasheed, "Improving Genetic Algorithm Convergence Using Guided Crossover", in *Proceedings of the Third Annual Conference on Genetic Programming (GP-98)/Symposium on Genetic Algorithms (SGA-98)*, p. 591 (poster), 1998.
- 130. Michael Blaize, Doyle Knight, and Khaled Rasheed, "Automated Optimal Design of Two Dimensional High Speed Missile Inlets", *The 36th AIAA Aerospace Sciences Meeting and Exhibit*, AIAA Paper No. 98-0950, 1998.
- 131. B. Chernyavshy, V. Stepanov, K. Rasheed, M. Blaize and D. Knight, "3-D Hypersonic Inlet Optimization Using Genetic Algorithms", *The 34th AIAA/ASME/ASEE Joint Propulsion Conference*, AIAA Paper No. 98-3582, 1998.
- 132. Michael Blaize, Doyle Knight, Khaled Rasheed, and Yan Kergaravant, "Optimal Missile Inlet Design by Means of Automated Numerical Optimization", *The NATO RTO/AVT Symposium on Missile Aerodynamics*, pp. 371.37.9 1998.
- 133. Khaled Rasheed and Haym Hirsh, "Using Case Based Learning to Improve Genetic Algorithm Based Design Optimization", in *Proceedings of the Seventh International Conference on Genetic Algorithms (ICGA'97)*, pp 513-520, 1997. (Acceptance rate 49%)
- 134. G.-C. Zha, D. Smith, M. Schwabacker, K. Rasheed, A. Gelsey, and D. Knight, "High Performance Supersonic Missile Inlet Design Using Automated Optimization", *AIAA Symposium on Multidisciplinary Analysis and Optimization*, AIAA Paper No. 96-4142, 1996.

## **Submitted Conference Publications:**

# **Workshop Publications:**

- 135. Amna Basharat, Bushra Abro, Budak Arpinar, and Khaled Rasheed, "Semantic Hadith: Leveraging Linked Data Opportunities for Islamic Knowledge". Linked Data on the Web workshop of *the 25th International World Wide Web Conference*, 2016.
- 136. Anirban Mukhopadhyay, Chul Woo Lim, Suchendra Bhandarkar, Hanbo Chen, Tianming Liu, Khaled Rasheed and Thiab Taha. "Analysis Of Surface Folding Patterns Of DICCCOLS Using The Geodesic Field Estimate", *The 16th International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI'2013)* Workshop on Mesh Processing in Medical Image Analysis, 2013.
- 137. Jiang Xuan, Deepti Chafekar and Khaled Rasheed, "Constrained Multi-objective GA Optimization Using Reduced Models", *The Genetic and Evolutionary Computation Conference (GECCO'2003)* workshop on learning and adaptation in evolutionary computation, July 2003.
- 138. Khaled Rasheed, Swaroop Vattam and Xiao Ni, "Comparison of Methods for Using Reduced Models to Speed Up Design Optimization", in *The Genetic and Evolutionary Computation Conference (GECCO'2002)* workshop on approximation and learning in evolutionary computation, 2002.
- 139. Brian Davison and Khaled Rasheed, "Effect of Global Parallelism on a Steady State Genetic Algorithm", *Evolutionary Computing and Parallel Processing workshop at the Genetic and Evolutionary Computation Conference*, (GECCO'99), 1999.
- 140. Khaled Rasheed and Andrew Gelsey, "Adaptation of Genetic Algorithms for Engineering Design Optimization", *Artificial Intelligence in Design (AID'96)*, Workshop on Evolutionary Systems in Design, 1996.

# **Submitted Workshop Publications:**

# **Technical Reports:**

141. Khaled Rasheed, "GADO: A Genetic Algorithm for Continuous Design Optimization", Technical Report DCS-TR-352, Department of Computer Science, Rutgers University, New Brunswick, NJ, 1998. Ph.D. Thesis.

# **INVITED TALKS:**

- 1. "Analysis of the Effect of Distance Metric Across Languages on Verse Similarity in The Qur'An", in the 2016 Int'l. Conf. on Artificial Intelligence (ICAI'2016)', 2016.
- 2. "Towards Linked Open Islamic Knowledge using Human Computation and Crowdsourcing", in the third Int'l. Conf. on Islamic Application in Computer Science and Technologies (IMAN'2015)", 2015.
- 3. "Comparative Study of Verse Similarity for Multi-lingual Representations of the Qur'an", in the Int'l. Conf. on Artificial Intelligence (ICAI'2015)', 2015.
- 4. "Automated scoring of Levels of Integrative Complexity using Machine Learning and Natural Language Processing", in *the Int'l. Conf. on Artificial Intelligence (ICAI'2015)*", 2015.
- 5. "Automated scoring of the Level of Conceptual/Integrative Complexity from Text using Machine Learning", in the International Conference on Machine Learning and Applications (ICMLA 2014), 2014.
- 6. "Artificial Intelligence in Clothing Fashion", in the 2014 Int'l. Conf. on Artificial Intelligence (ICAI'2014), 2014.
- 7. "Evolmusic: A Prefernce Learning Accompanist", in the 2014 Int'l. Conf. on Genetic and Evolutionary Methods (GEM'2014), 2014.
- 8. "Evac: An Evolutionary Accompanist", in the 2013 Int'l. Conf. on Genetic and Evolutionary Methods (GEM'2013), 2013.
- 9. "A Fast Parameter Setting Strategy for Particle Swarm Optimization and Its Application in Urban Water Distribution Network Optimal Design", in the 2013 Int'l. Conf. on Genetic and Evolutionary Methods (GEM'2013), 2013.
- 10. "Extracting the Best Features for Predicting Stock Prices Using Machine Learning", in the 2012 Int'l. Conf. on Artificial Intelligence (ICAI'2012), 2012.
- 11. "Stock Price Prediction Using Genetic Algorithms and Evolution Strategies", in the 2012 Int'l. Conf. on Genetic and Evolutionary Methods (GEM'2012), 2012.
- 12. "A Surrogate-assisted Linkage Inference Approach in Genetic Algorithms", in the Genetic and Evolutionary Computation Conference (GECCO'2011), 2011.
- 13. "GART: A Genetic Algorithm based Real Time System Scheduler", in the IEEE Congress on Evolutionary Computation (CEC' 2011), 2011.
- 14. "Evolving Efficient Sensor Arrangement and Obstacle Avoidance Control Logic for a Miniature Robot", in the Twenty-fourth International Conference on Industrial, Engineering and Other Applications of Applied Intelligent Systems (IEA/AIE 2011), 2011.
- 15. "Bayesian Networks and Genetic Algorithms for Promoter Recognition", in *the IASTED International Conference on Computational Bioscience (CompBio 2010)*, 2010.
- 16. "Application of Machine Learning Algorithms for Binning Metagenomic Data", in the International Conference on Bioinformatics and Computational Biology (BIOCOMP'2010), 2010.
- 17. "A Machine Learning Approach for Sensitivity Inference in Genetic Algorithms", in the 2010 Int'l. Conf. on Genetic and Evolutionary Methods (GEM'2010), 2010.
- 18. "Classification of Genomic Islands Using Decision-tree Based Algorithms", in the International Conference on Bioinformatics and Computational Biology (BIOCOMP'09), 2009.

- 19. "Genetic-Algorithm-Based feature Selection for Biomaterial Modeling", in *the IMACS World Congress*, 2009.
- 20. "Using Genetic Algorithms for Simultaneous Noise Removal and Feature Selection in Classification and Regression Problems", in *the International Conference on Artificial Intelligence (ICAI'09)*, 2009.
- 21. "Simultaneously Removing Noise and Selecting Relevant Features for High Dimensional Noisy Data", in *Proceedings of the Seventh International Conference on Machine Learning and Applications (ICMLA'08)*, pp. 147 152, 2008. (Acceptance rate: 50%)
- 22. "ASAGA: An Adaptive Surrogate-Assisted Genetic Algorithm", in the Genetic and Evolutionary Computation Conference (GECCO'2008), 2008.
- 23. "Temporal Difference Learning for Nondeterministic Board Games", in the Int'l Conf. on Machine Learning; Models, Technologies and Applications (MLMTA'08), 2008.
- 24. "Improving GA Performance Using Relative Fitness", in the International Conference on Genetic and Evolutionary Methods (GEM'07), 2007.
- 25. "Fitness Approximation in Evolutionary Computation", tutorial at *GECCO'2005* and presented with Yaochu Jin, 2005.
- 26. "Improving GA Search Reliability Using Maximal Hyper-Rectangle Analysis", in the Genetic and Evolutionary Computation Conference (GECCO'2005), 2005.
- 27. "MDGA: Motif Discovery Using a Genetic Algorithm", in the Genetic and Evolutionary Computation Conference (GECCO'2005), 2005.
- 28. "Hurst Exponent and Financial Market Predictability", in the IASTED Conference on Financial Engineering and Applications (FEA 2004), 2004.
- 29. "Machine Learning Methods for Biomaterial Modeling", in the 7<sup>th</sup> New Jersey Symposium for Biomaterials, October 2004.
- 30. "Machine Learning Techniques for the Evaluation of External Skeletal Fixation Structures", The International Conference on Mathematics and Engineering Techniques in Medicine and Biological Sciences (METMBS '04), June 2004.
- 31. "Constrained Multi-objective Optimization Using Steady State Genetic Algorithms", *The Genetic and Evolutionary Computation Conference (GECCO'2003)*.
- 32. "GADO: A Genetic Algorithm for Design Optimization", invited seminar, Georgia Institute of Technology, April 2003.
- 33. "Using Singular Value Decomposition to Improve a Genetic Algorithm's Performance", in the Congress on Evolutionary Computation (CEC'2003), 2003.
- 34. "Comparison of Methods for Using Reduced Models to Speed Up Design Optimization", in the Genetic and Evolutionary Computation Conference (GECCO'2002), 2002.
- 35. "GADO: A Genetic Algorithm for Design Optimization", invited seminar, University of Maryland, College Park, Maryland, 2001.
- 36. "Informed Operators: Speeding up genetic-algorithm-based design optimization using reduced models", *Genetic and Evolutionary Computation Conference* (GECCO'2000), 2000.
- 37. "An Incremental-Approximate-Clustering Approach for Developing Dynamic Reduced Models for Design Optimization", in the *Congress on Evolutionary Computation* (CEC'2000), 2000.
- 38. "Effect of Global Parallelism on a Steady State Genetic Algorithm", in the *Evolutionary Computing and Parallel Processing workshop at the Genetic and Evolutionary Computation Conference* (GECCO'99), 1999.
- 39. "GADO: A genetic Algorithm for Design Optimization", NASA Ames Research Center, 1998.
- 40. "An Adaptive Penalty Approach for Constrained Genetic Algorithm Optimization", in the Third Annual Conference on Genetic Programming (GP-98)/Symposium on Genetic Algorithms (SGA-98), 1998.

- 41. "Using Case Based Learning to Improve Genetic Algorithm Based Design Optimization", in the Seventh International Conference on Genetic Algorithms (IGGA'97), 1997.
- 42. "Adaptation of Genetic Algorithms for Engineering Design Optimization", in *The Artificial Intelligence in Design* (AID'96) Workshop on Evolutionary Systems in Design, 1996.

# **MAJOR PROFESSOR OF: [51 in total]**

# Ph.D. Dissertation Advisor for:

- 1. Afsaneh Shams, Ph.D. in Computer Science, in progress
- 2. Enas Alkhoshi, , Ph.D. in Computer Science, "TOWARDS ROBUST SENSOR-BASED HUMAN ACTIVITY RECOGNITION IN REAL-WORLD ENVIRONMENTS", Fall 2023.
- 3. Jonathan Vance, Ph.D. in Computer Science, "FORECASTING BIOMASS YIELDS WITH MACHINE LEARNING AND DOMAIN ADAPTATION", Summer 2023
- 4. Hamed Yaghoobian, Ph.D. in Computer Science, "Structure- and Context-aware NLP Approaches to Emotion and Subjectivity", Summer 2021.
- 5. Amna Basharat, Ph.D. in Computer Science, "Semantics Driven Human-Machine Computation Framework for Linked Islamic Knowledge Engineering", Fall 2016.
- 6. ManChon U, Ph.D. in Computer Science, "Improving Learning Outcomes by Using Clustering Validity Analysis to Reduce Label Uncertainty", Summer 2013.
- 7. Tomasz Oliwa, Ph.D. in Computer Science, "Learning, Exploiting and Benchmarking Problem Structures in Real-Valued Evolutionary Optimization", Spring 2013.
- 8. Boseon Beyon, PhD. in Computer Science, "Enhancing the Quality of High Dimensional Noisy Data for Classification and Regression Problems", Spring 2009.
- 9. Liang Shi, Ph.D. in Computer Science, "Adaptive Surrogate-Assisted Evolution", Fall 2008.
- 10. Bo Qian, Ph.D. in Computer Science, "Intelligent Financial market Prediction", Summer 2006.

# M.S. Thesis Advisor for:

- 11. Jason Lian, M.S. in Artificial Intelligence, in progress
- 12. Daniel Harper, M.S. in Artificial Intelligence, in progress
- 13. Arthur LeBlanc, M.A.M.S, in progress
- 14. Bryan Smith, M.S. in Artificial Intelligence, in progress
- 15. Bradley Howard, M.S. in Artificial Intelligence, in progress
- 16. Lakshmita Kutari, M.S. in Computer Science (Non-Thesis), Spring 2023
- 17. Mounika Ganjikunta, M.S. in Computer Science (Non-Thesis), Spring 2023
- 18. Vikas Kunchala, M.S. in Artificial Intelligence, "Predicting Undergraduate Student Dropout Using Artificial Intelligence, Big Data and Machine Learning", Summer 2021.
- 19. Christopher Whitmire, M.S. in Artificial Intelligence, "Machine learning and feature selection for biomass yield prediction using weather and planting data", Summer 2019.
- 20. Chandler Kincaid, M.S. in Artificial Intelligence, "Genetic sequence classification and phylogenetic construction with N-gram methods", Fall 2018.
- 21. Liang Wang, M.S. in Computer Science, "Stock Ranking with Market Microstructure, News and Technical Indicators", Spring 2018.
- 22. Brent Lippert, M.S. in Artificial Intelligence, "Prediction of cancer-related mutation impact on protein activity using machine learning", Spring 2018.
- 23. Qiang Hao, M.S. in Computer Science, "Feature Selection and Classification of Post-Graduation Income of College Students in the United States", Spring 2017.

- 24. Brittany Norman, M.S. in Artificial Intelligence, "Computational Methods for Categorizing Unstructured Data Related to Pediatric Appendicitis within Electronic Medical Records", Spring 2017.
- 25. Shubham Jindal, M.S. in Artificial Intelligence, "Short Text Classification of Clinical Questions", Summer 2016.
- 26. Anzah Niazi, M.S. in Artificial Intelligence, "A Study in Human Activity Recognition: Hierarchical Classification and Statistical Analysis", Co-advisor, Summer 2016.
- 27. Guangjie Shi, M.S. in Computer Science, "Application of machine learning in malware file classification", Summer 2016.
- 28. Pan Huang, M.S. in Computer Science, "Multilingual Text Similarity Analysis in Islamic Texts", Spring 2016.
- 29. Aardra Ambili, M.S. in Artificial Intelligence, "Automated Scoring of Integrative Complexity using Machine Learning and Natural Language Processing", Fall 2014.
- 30. Akul Dewan, M.S. in Artificial Intelligence, "Predicting Protein stability Change Upon Single Point Mutation Using Multi-Instance Regression: A Local Conformational Analysis Approach", Fall 2014.
- 31. Haosha Wang, M.S. in Artificial Intelligence, "Machine Fashion: An Artificial Intelligence Based Clothing Fashion Stylist", Summer 2014.
- 32. William Richardson, M.S. in Artificial Intelligence, "Evolutionary Instance Re-sampling for Difficult Data Sets", Fall 2013.
- 33. Chul Woo Lim, M.S. in Computer Science, "Using Massively Parallel evolutionary Computation on GPUs for Biological Circuit Reconstruction", Fall 2013.
- 34. Shu Zhang, M.S. in Artificial Intelligence, "Evolutionary Accompaniment Systems for Creative Music Generation", Summer 2013.
- 35. Ganesh Bonde, M.S. in Artificial Intelligence, "Extracting the Best Features From Multi-company Stock Data to Improve Stock Price Prediction", Summer 2012.
- 36. Meng Meng, M.S. in Computer Science, "Automated MRI Prediction of Alzheimer's Disease Development by Machine Learning Methods", Fall 2011.
- 37. Rahila Umer, M.S. in Computer Science, "Machine Learning Approaches for the Computer Aided Diagnosis and Prediction of Alzheimer'S Disease Based on Clinical Data", Summer 2011.
- 38. Vasim Mahamuda, M.S. in Computer Science, "Analyzing the Performance of Machine Learning Algorithms on Metagenomic data", Summer 2010.
- 39. Cesar Koirala, M.S. in Artificial Intelligence, "Comparison of the Effects of Lexical and Ontological Information on Text Categorization", Summer 2008.
- 40. Arlo Morrison Lyle, M.S. in Artificial Intelligence, "Baseball Prediction Using Ensemble Learning", (Spring 2007).
- 41. Glenn Franklin Matthews, M.S. in Computer Science, "Using Temporal Difference Learning to Train Players of Nondeterministic Board Games", (Fall 2006).
- 42. Reyman Rabbani, M.S. in Computer Science, "Predicting Microbial Activity during Composting using Machine Learning Techniques", (Summer 2006).
- 43. Eric Stiles, M.S. in Computer Science, "Bone Desktop: A Visualization Tool for the Evaluation of External Skeletal Fixation Proposals", (Spring 2005).
- 44. Congshan Zhang, M.S. in Computer Science, "Improving GA Performance by Using Maximal Hyber-Rectangle Analysis and Relative Fitness", (Spring 2005).
- 45. Jaymin Kessler, M.S. in Artificial Intelligence, "Using Genetic Algorithms to Recognize Superpeer Structure in Peer to Peer Networks", (Co-advisor, Fall 2004).
- 46. Deepti Chafekar, M.S. in Computer Science, "Constrained Multi-Objective Optimization Using Steady State Genetic Algorithms", (Fall 2004).

- 47. Diptee Mehta, M.S. in Computer Science, "Machine Learning Approaches for Biomaterial Modeling", (Summer 2004).
- 48. Ning Suo, M.S. in Artificial Intelligence, "Machine Learning Techniques for the Evaluation of External Skeletal Fixations Structures", (Summer 2003).
- 49. Dmitri Kolychev, M.S. in Computer Science, "Microsatellite Detection and Consensus Sequence Verification by Virtual PCR and Machine Learning", (Summer 2003).
- 50. Xiao Ni, M.S. in Artificial Intelligence, "Comparisons of Methods for Developing and Using Dynamic Reduced Models for Design Optimization", (Summer 2002).
- 51. Anil Bahuman, M.S. in Artificial Intelligence, "An Evolutionary Approach to Standard Cell Design Automation", (Co-advisor, Fall 2001).

# **Member of Advisory Committees:** [164 in total]

# PhD in CS: 6 ongoing, 39 graduated

Abdulkarim Kushk (Summer 2023), Keyang He (Spring 2023), Seyedsaed Rezayidemne (Spring 2023), Farid Ghareh Mohammadi (Summer 2022), Sahar Voghoei (Summer 2021), Mohammadhossein Toutiaee (summer 2021), David Robinson (ongoing), Wei Zhang (Summer 2019), Di Chang (ongoing), Omar Alobaid (Fall 2020), Soheyla Amirian (Summer 2021), Zahra (Parya) Jandaghi (Fall 2022), Mehdi Assefi (Fall 2021), Saeid Safaei (ongoing), Seyed Navid Hashemi (ongoing), Aryabrata Basu (Fall 2018), Roi Ceren (Fall 2018), Chen Chen (Fall 2020), Qinglin Dong (Summer 2019), Saurabh Arora (ongoing), Sal Lamarca (ongoing), Hao Peng (Summer 2019), Arun Kumar (Fall 2018), Sominath Das (Summer 2018), Karan Sharma (Summer 2018), Delaram Yazdansepas (Fall 2017), Muthukomaran Chandrasekaran (Fall 2017), Mustafa Nural (Fall 2017), Mohammad Mohebbi (Fall 2017), Sherrene Bogle (Fall 2015), Khaleefah Aljadaa (Fall 2014), Ekhlas Sonu (Summer 2015), Anirban Mukhopadhyay (Summer 2014), David Luper (Fall 2012), Zhibin Huang (Spring 2011), Haibo Zhao (Summer 2009), Rabia Jafri (Summer 2008), Zhiming Wang (Summer 2008), Dongsheng Che (Summer 2008), Maciej Janik (Summer 2008), Siddhartha Chattopadhyay (Fall 2007), Zhenyu Zhong (Summer 2007), Ananda Chowdhury (Summer 2007), Xingzhi Luo (Summer 2006), Junfeng Qu (Spring 2006), Jacob Martin (Fall 2005), Hongxia Zhao (Rutgers University, Summer 2004).

# MS in CS: 5 ongoing, 46 graduated

Pawan Yadav (ongoing), Madhura Gadgil (ongoing), Sreekanth Pinjala (ongoing), Sandipani Basu (Summer 2023), Saketh Jammula (Summer 2023), Saar Hersonsky (Summer 2019), Roxana Attar (Spring 2019), Zheliang Liu (Fall 2018), Sindhuri Chandrupatla (Summer 2018), Faranak Jalalzadehfard (Spring 2018), Bo Li (ongoing), Lu Jiang (ongoing), Anuja Nagare (Summer 2018), Nitin Saroha (Spring 2018), Priyanka Luthra (Fall 2017), Talal Alothman (Fall 2017), Sara Vahid (Spring 2017), Collin Watts (Summer 2016), Zhe Jin (Summer 2016), Indrajit Das (Summer 2016), Zhaochong Liu (Summer 2016), Sidi Liu (Fall 2015), Sayali Kale (Fall 2015), Ruichen Dai (Fall 2015), Nilayan Bhattacharya (Fall 2014), Chenxiao Fan (Spring 2014), Sagar Tarkhadkar (Fall 2013), Sayali Birari (Summer 2013), Raga Sowmya Tummalapenta (Fall 2012), Anousha Mesbah (Spring 2012), Asmita Rahman (Fall 2011), Carl Animesh Thakre (Summer 2011), Ankur Oberai (Summer 2011), Justin Martin (Summer 2011), Brett Meyer (Spring 2011), Qian Ma (Fall 2010), Qi Li (Fall 2010), Naveed Ahmed (Fall 2010), Sheng Yin (Fall 2009), Sharon Paradesi (Fall 2009), Kartheek Atluri (Fall 2009), Jaim Ahmed (Spring 2009), Durga Yeluri (Summer 2005), William Brown (Spring 2005), Yuchao Zhou (Spring 2005), Karthikeyan Giriloganathan (Spring 2004), Kaan Tariman (Spring 2004), Shrirang Yardi (Summer 2003), Mullai Shanmuhan (Spring 2003), Ruihua Liu (Spring 2001), Nilay Roy (Fall 2000).

# MS in AI: 2 ongoing, 62 graduated

Siva Krishna Ravipati (spring 2023), Vishnupriya Buggineni, (Spring 2023), Amanda Issac (Spring 2023), Margaret Schrayer (fall 2022), Aashish Yadavally (Summer 2020), Sabri Sabri (Summer 2021), Brij Rokad (Fall 2020), Sumer Singh(Summer 2020), John Gibbs (Spring 2019), Lillian Li (Fall 2021), Hemanth Dandu (Fall 2020), Zachary Jones (Spring 2019), Joshua Shannon (Fall 2019), Yuanming Shi (ongoing), Rajaswari Siyakumar (Fall 2019), Christopher Barrick (ongoing), Maulik Shah (Spring 2019), Justin Payan (Fall 2018), Yan Du (Summer 2018), Sam Sanders (Fall 2017), Ankita Joshi (Fall 2017), Maulesh Trivedi (Summer 2016), Cameron Hamilton (Spring 2016), Thomas Drapela (Spring 2015), MD Shahnawaz Khan (Spring 2015), Seth Meyerson (Spring 2015), Kedar Marathe (Fall 2014), Matthew Losanno (Summer 2013), Weixin Ling (Fall 2012), Allen Taylor (Summer 2012), Yan Qu (Summer 2011), Nithya Vembu (Spring 2011), Philip Brooks (Fall 2010), Ananta Palani (Spring 2010), Muthukomaran Chandrasekaran (Spring 2010), Eric Drucker (Fall 2009), Karan Sharma (Fall 2008), Xia Qu (Fall 2008), Jeremy Tarver (Summer 2008), Christpher Taylor (Fall 2007), Dennis Perez (Fall 2007), Joe McFall (Summer 2007), Sergey Fogelson (Summer 2007), Kumar Ujiwal (Spring 2007), Rucen Deng (Summer 2006), Julian Bishop (Summer 2006), Steven Cheng (Summer 2006), Srigopika Radhakrishnan (Spring 2006), Daniel Tuohy (Spring 2006), David Boucugnani (Summer 2005), Daniel DeJuan (Summer 2005), Shilpa Hardas (Summer 2005), David Barnhard (Summer 2005), Darren Casella (Spring 2005), Kartini Abd Ghani (Fall 2004), Jason Schlachter (Summer 2004), Xunyu Pan (Summer 2004), Yarong Tang (Fall 2003), Abhishek Jain (Fall 2003), Sanjay Chellapilla (Summer 2003), Ernest Foster (Fall 2002), Lei Wu (Fall 2002), Tong Wang (Spring 2002), Chun Liang (Summer 2001).

# MS in Engineering: 1 graduated

Xuewei Qi (Summer 2013).

# **UNIVERSITY SERVICE:**

Director, Institute for Artificial Intelligence (2016 – present).

Graduate Coordinator, Institute for Artificial Intelligence (2003 – 2016).

Chairman of the AI Admissions Committee (2003 – present).

Member of the AI Curriculum Committee (2003 – present).

Member of the Faculty of Engineering (2001 - 2012).

Member of the Institute of Bioinformatics (2008 – 2016).

Cognitive Science, Undergraduate Degree Program Review Committee (2009 - present).

UGA Graduate Faculty, member since 2003.

Member of the Artificial Intelligence Faculty (Fall 2000 – present).

Reviewer, Institute for Integrative Precision Agriculture seed grant proposals (2023)

# **DEPARTMENTAL SERVICE:**

Chair of the CS Undergraduate Programs and Curriculum Committee (2015 – 2020).

Member of the Undergraduate Programs and CS Curriculum Committee (2002 – 2023).

Member of the Graduate Programs and CS Curriculum Committee (2023 – present).

Member of the CS Publications and Web Committee (2015 – present).

Member of the CS Teaching Assignments Committee (2012 – present).

Tea coordinator (2011 – present).

Member of the CS Research Events Committee (2009 – present).

Member of the CS Tenured Faculty Committee (2006 – present).

Director of the Evolutionary Computation and Machine Learning (ECML) lab (2000 – present).

Member of the CS Graduate Programs Committee (2012 – 2015).

Member of the CS Strategic Planning Committee (2011 – 2013). Member of the CS Equipment Committee (2010 – 2013). Chair of the CS Research Events Committee (2011 – 2012). Member of the CS Head's Advisory Committee, (2009-2010). Member of the CS graduate student recruiting committee (2000, 2001).