Huzefa Rangwala

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Education

2008 **Ph.D.** in Computer Science, University of Minnesota, Twin Cities
Thesis: Comparative Modeling using Machine Learning. Advisor: Prof. George Karypis.
GPA: 3.972

2005 **M.S.** in Computer Science, University of Minnesota, Twin Cities
Thesis: Greedy Window based Protein Sequence Alignments. Advisor: Prof. George Karypis.
GPA: 3.963

2003 **B.E.** in Computer Engineering, V.J.T.I, Mumbai University, Mumbai
GPA: 4.0, First Class with Honor Distinction

Research Interests

Data Mining, Bioinformatics, High Performance Computing, and Educational Mining.

Professional Experience

August 2014-Present: *Associate Professor.* Dept. of Computer Science, George Mason University, Fairfax, VA, USA.

August 2015-May 2016: *Visiting Faculty* Discovery Analytics Center (Prof. Ramakrishnan), Virginia Tech. University, Arlington, VA, USA.

August 2008-August 2014: *Assistant Professor.* Dept. of Computer Science, George Mason University, Fairfax, VA, USA.

August 2008-Present: *Affiliate Appointment.* Dept. of Bioinformatics & Computational Biology, George Mason University, Prince William, VA, USA.

August 2011-Present: *Affiliate Appointment.* Dept. of Bioengineering, George Mason University, Fairfax, VA, USA.

September 2006-December 2006: *Instructor.* Dept. of Computer Science, University of Minnesota, Minneapolis, MN, USA.

May 2005-September 2005: *Blue Gene/L Intern.* IBM Corporation, Rochester, MN, USA.

Honors/Awards

May 2017	Outstanding Service Award, Computer Science, George Mason University.
October 2014	2014 Mason Emerging Researcher/Scholar/Creator Award.
April 2014	George Mason University Teaching Excellence Award.
May 2014	Finalist for Oscar Mentoring Excellence Award, George Mason University.
May 2013	Volgenau School of Engineering (VSE) Outstanding Teacher Award.

April 2013	George Mason University's Rising Star nominee for Outstanding Faculty Award, sponsored by State Council of Higher Education for Virginia (SCHEV).
March 2013	NSF Early Career Award (2013–2018).
January 2013	Featured on Center For Faculty & Teaching Excellence Newsletter, "Spotlight on Innovation in Teaching Faculty".
May 2012	Outstanding Teaching Faculty Award, Computer Science, George Mason University.
May 2012	Finalist for Oscar Mentoring Excellence Award, George Mason University.
November 2011	Selected Participant at the National Academy of Engineering (NAE) organized "Frontiers in Engineering Education" symposium.
May 2011	Outstanding Young Researcher Award, Computer Science, George Mason University.
March 2011	Best Paper Award at the 3rd ISCA Bioinformatics & Computational Biology Conference held in New Orleans, LA.

Research Support

External Funding

NSF MRI: *Acquisition of a Shared Scalable Research Storage System.* CNS-1625039. PI: Ken DeJong, Co-PI: **Huzefa Rangwala** and James Kinter, $450,0000, 09/15/2016-08/31/2019.

NSF: *BIGDATA: IA: DKA: Collaborative Research: Learning Data Analytics: Providing Actionable Insights to Increase College Student Success.* IIS-1447489. PI: **Huzefa Rangwala**. Co-PI: Aditya Johri and Jaime Lester. $766,202, 09/01/2014-08/31/2018.

NRL: *User Information Demand Modeling.* SA-GMU-NRL-2017. PI: Jessica Lin, Co-PI: **Huzefa Rangwala**, $73,968, 09/30/2016-09/29/2017.

NRL: *Trajectory Pattern Mining and User Behavior Characterization on Large-Scale Track Data.* SA-GMU-NRL-2016. PI: Jessica Lin, Co-PI: **Huzefa Rangwala**, $139,000, 09/15/2016-03/15/2017.

NRL: *Trajectory Pattern Mining for Proactive Decision Support.* SA-GMU-NRL-2015. PI: Jessica Lin, Co-PI: **Huzefa Rangwala**, $92,164, 03/15/2015-09/15/2015.

Google: *SPARC: Self-Paced Learning Increases Retention and Capacity.* 3X-3Years. PI: Jeff Offutt, Co-PI: Kinga Dobolyi, Liz White, Jaime Lester, Paul Amman, Pearl Wang, Sanjeev Setia and **Huzefa Rangwala**, $900,000, 05/01/2015-04/30/2018.

NRL: *Contextual Anomaly Detection in Medical Applications.* SA-GMU-NRL-2014. PI: Jessica Lin, Co-PI: **Huzefa Rangwala**, $36,824, 07/21/2014-01/31/2015.

NSF CPS: *CPS: Synergy: A Novel Biomechatronic Interface Based on Wearable Dynamic Imaging Sensors.* PI: Siddhartha Sikdar, Co-PI: **Huzefa Rangwala**, Jana Kosecka and Houman Homayoun. $995,055, 02/01/2014-01/31/2018.

NSF CAREER: *Annotating the Microbiome Using Machine Learning Methods.* IIS-1252318. PI: **Huzefa Rangwala**, $550,000, 03/01/2013-02/28/2018.

NSF III: *Collaborative Research: Computational Methods to Advance Chemical Genetics by Bridging Chemical and Biological Spaces.* IIS-0905117. PI: **Huzefa Rangwala**, $331,537, 09/01/2009-08/31/2013. *Additional REU Supplement: $8000*

NSF: *Workshop: 2014 NSF CISE CAREER Proposal Writing Workshop.* CNS-1415210. PI: Amarda Shehu, Co-PI: **Huzefa Rangwala**, $73,7500, 12/15/2013-05/31/2014.

NIH: *Systems Biology Approach to Identifying Biomarkers for Alcoholic Liver Disease.* NIAAA-1RC2AA010405-01. PI: Ali Kesharvarizan & Patrick Gillevet. Co-PI: **Huzefa Rangwala, Robin Couch. $1,974,161 ($972,966 GMU portion), 10/01/09-09/30/12.** *This is a highly competitive ARRA GO (grand opportunities) award.*

DARPA: *CyNomix: Detecting Zero-Day Malware by Generating Behavioral Cyber Genome Sequences.* DARPA-CyberGenome. PI: Angelo Stavrou, Co-PI: **Huzefa Rangwala**, $1,527,225, 09/01/10-08/31/14.

USDA: *Bovine microRNA Transcriptome Analyses: Discovery, Tissue Specific Expression Profile and Target Gene Prediction..* PI: **Huzefa Rangwala**, $45,000. 11/01/2011-04/30/2012.

nVidia: *GPU Computing for Assembly of Genomes.* PI: **Huzefa Rangwala**, $3,000 worth equipment donation. 02/01/2010.

NSF: *Career Mentoring Forum and Student Travel Support for 2012 IEEE International Conference on Data Engineering.* PI: **Huzefa Rangwala**. Co-PIs: Carlotta Domeniconi and Alex Brodsky, $24,000. 03/01/2012-03/01/2013.

nVidia: *CUDA University Research Center.* PI: Saleet Jaffri, Co-PI: **Huzefa Rangwala**, 08/30/2011-08/30/2012.

NSF MRI: *Acquisition of a 3T MRI for Integrative Brain-Body Imaging.* PI: James Thompson. Co-PI: Siddhartha Sikdar. Senior Personnel: **Huzefa Rangwala**, $1,647,968, 08/31/2016-08/31/2019.

NSF II-NEW: *II-NEW: An Experimental Infrastructure for Cross-Domain Research in Wireless Computing, Cybersecurity and Data Mining.* PI: Robert Simon, Co-PIs: Daniel Barbara, Brian Mark and Angelos Stavrou. Senior Personnel: **Huzefa Rangwala**, $547,307, 09/01/2012-08/31/2015.

Internal Funding

University: Multidisciplinary Research Award: Forecasting Mass Murders in Latin America. PI: **Huzefa Rangwala**, Co-PI: Desmond Arias, $25,000, 09/01/2016-08/31/2017.

OSCAR: Students as Scholars Track B: Curriculum Development and Revision. PI: Pearl Wang, Co-PIs: Jan Allbeck and **Huzefa Rangwala**, $21,500, 08/01/2012-07/30/2014.

University Seed Grant: Parallel Assembly of Genomes and Metagenomes. PI: **Huzefa Rangwala**, $20,000, 01/01/2010-12/31/2010.

Volgenau Seed Grant: Disease State Inference from Microbiome in the Gut. PI: **Huzefa Rangwala**, $30,233, 09/01/2009-12/30/2010.

Volgenau Seed Grant: Adverse Event Detection Mining in Health Data. PI: Jessica Lin, Co-PIs: **Huzefa Rangwala**, Carlotta Domeniconi and Daniel Barbara, $3,500. 09/01/2009-12/30/2010.

Research Publications

Books

1. **Huzefa Rangwala** and George Karypis. *Introduction to Protein Structure Prediction : Methods and Algorithms.* Wiley, Hoboken, N.J., Dec. 2010. ISBN: 978-0-470-47059-6 (Edited Book)

Journal Articles

1. Carrie Klein, Jaime Lester, Huzefa Rangwala, and Aditya Johri. Adoption of educational technology tools in higher education at the intersection of institutional commitment and individual trust. *The Review of Higher Education*, 2017. In Press

2. Asmaa Elbadrawy, Agoritsa Polyzou, Zhiyun Ren, Mackenzie Sweeney, George Karypis, and Huzefa Rangwala. Predicting student performance using personalized analytics. *Computer*, 49(4):61–69, 2016

3. Mack Sweeney, Huzefa Rangwala, Jaime Lester, and Aditya Johri. Next-term student performance prediction: A recommender systems approach. *Journal of Educational Data Mining*, 2016

4. Nima Akhlaghi, Alex Baker, M. Lahlou, Hozaifah Zafar, K. G. Murthy, **Huzefa Rangwala**, Jana Kosecka, Wilsaan Joiner, Joseph Pancrazio, and Siddhartha Sikdar. Real-time classification of hand motions using ultrasound imaging of forearm muscles. *IEEE Transactions on Biomedical Engineering*, 63(8):1687–1698, 2016. **IF: 2.34**

5. Nuttachat Wisittipanit, **Huzefa Rangwala**, Masoumeh Sikaroodi, ECE Mutlu, Ali Keshavarzian, and Patrick Gillevet. Classification methods for the analysis of lh-pcr data associated with inflammatory bowel disease patients. *International Journal of Bioinformatics Research and Applications*, 11(2):111–129, 2015

6. Anveshi Charuvaka and **Huzefa Rangwala**. Classifying protein sequences using regularized multi-task learning. *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, pages 1–14, 2014. IF: **2.25** (In Press)

7. Guoxian Yu, **Huzefa Rangwala**, Carlotta Domeniconi, Guoji Zhang, and Zili Zhang. Predicting protein functions using multiple kernels. *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, pages 1–14, 2014. IF: **2.25** (In Press)

8. Guoxian Yu, **Huzefa Rangwala**, Carlotta Domeniconi, Guoji Zhang, and Zhiwen Yu. Protein function prediction with incomplete annotations. *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, 11(3):579–591, 2014. IF: **2.25**

9. Siddhartha Sikdar, **Huzefa Rangwala**, Emily Eastlake, Ira Hunt, Andrew Nelson, Jayanth Devanathan, Andrew Shin, and Joseph Pancrazio. Novel method for predicting dexterous individual finger movements by imaging muscle activity using a wearable ultrasonic system. *Neural Systems and Rehabilitation Engineering, IEEE Transactions on*, 22(1):69–76, Jan 2014

10. Guoxian Yu, **Huzefa Rangwala**, Carlotta Domeniconi, Guoji Zhang, and Zhiwen Yu. Protein function prediction using multi-label ensemble classification. *ACM/IEEE Transactions on Computational Biology and Bioinformatics*, 10(4):1045–1057, 2013. IF: **2.25**

11. Zeehasham Rasheed, **Huzefa Rangwala**, and Daniel Barbara. 16s rrna metagenome clustering and diversity estimation using locality sensitive hashing. *BMC Systems Biology*, 7(S-4)(S11), 2013. IF: **2.98**

12. Jasmohan S Bajaj, Douglas M Heuman, Arun J Sanyal, Phillip B Hylemon, Richard K Sterling, R Todd Stravitz, Michael Fuchs, Jason M Ridlon, Kalyani Daita, Pamela Monteith, Nicole A Noble, Melanie B White, Andmorgan Fisher, Masoumeh Sikaroodi, **Huzefa Rangwala**, and Patrick M Gillevet. Modulation of the metabiome by rifaximin in patients with cirrhosis and minimal hepatic encephalopathy. *PloS one*, 8(4):e60042, 2013. IF: **4.09**

13. Sharath Hiremagalore, Chen Liang, Angelos Stavrou, and **Huzefa Rangwala**. Improving network response times using social information. *Social Network Analysis and Mining*, 3(2):209–220, 2013

14. Zeehasham Rasheed and **Huzefa Rangwala**. Metagenomic taxonomic classification using extreme learning machines. *Journal of Bioinformatics and Computational Biology*, 10(05):1250015, 2012. IF : **1.06**

15. Ece A. Mutlu, Patrick M Gillevet, **Huzefa Rangwala**, Masoumeh Sikaroodi, Ammar Naqvi, Phillip A Engen, Mary Kwasny, Cynthia K Lau, and Ali Keshavarzian. Colonic microbiome is altered in alcoholism. *American Journal of Physiology - Gastrointestinal and Liver Physiology*, 2012. IF: **3.65**

16. Emma Dixon, Cynthia Clubb, Sara Pittman, Larry Ammann, Zeehasham Rasheed, Nazia Kazmi, Ali Keshavarzian, Pat Gillevet, **Huzefa Rangwala**, and Robin D Couch. Solid-phase microextraction and the human fecal voc metabolome. *PLoS One*, 6(4):e18471, 2011. IF: **4.09**

17. Anveshi Charuvaka and **Huzefa Rangwala**. Evaluation of short read metagenomic assembly. *BMC Genomics*, 12 Suppl 2:S8, 2011. IF : **4.4**

18. **Huzefa Rangwala** and Salman Jamali. Defining a coparticipation network using comments on digg. *IEEE Intelligent Systems*, 25(4):36–45, 2010

19. Ammar Naqvi, **Huzefa Rangwala**, Ali Keshavarzian, and Patrick Gillevet. Network-based modeling of the human gut microbiome. *Chem Biodivers*, 7(5):1040–1050, 2010. IF: **1.8**

20. Ammar Naqvi, **Huzefa Rangwala**, Greg Spear, and Patrick Gillevet. Analysis of multitag pyrosequence data from human cervical lavage samples. *Chem Biodivers*, 7(5):1076–1085, 2010. IF: **1.8**

21. Salim Charaniya, Huong Le, **Huzefa Rangwala**, Keri Mills, Kevin Johnson, George Karypis, and Wei-Shou Hu. Mining manufacturing data for discovery of high productivity process characteristics. *J Biotechnol*, 147(3-4):186–197, 2010. IF: **3.18**

22. Rezwan Ahmed, **Huzefa Rangwala**, and George Karypis. Toptmh: topology predictor for transmembrane alpha-helices. *J Bioinform Comput Biol*, 8(1):39–57, 2010. IF: **1.06**

23. **Huzefa Rangwala**, Christopher Kauffman, and George Karypis. svmprat: Svm-based protein residue annotation toolkit. *BMC Bioinformatics*, 10:439, 2009. IF: **3.02**

24. Xia Ning, **Huzefa Rangwala**, and George Karypis. Multi-assay-based structure-activity relationship models: improving structure-activity relationship models by incorporating activity information from related targets. *J Chem Inf Model*, 49(11):2444–2456, 2009. IF :**4.3**

25. **Huzefa Rangwala** and George Karypis. frmsdpred: predicting local rmsd between structural fragments using sequence information. *Proteins*, 72(3):1005–1018, 2008. IF: **3.33**

26. **Huzefa Rangwala** and George Karypis. Incremental window-based protein sequence alignment algorithms. *Bioinformatics*, 23(2):e17–23, 2007. IF: **5.32**

27. **Huzefa Rangwala** and George Karypis. Building multiclass classifiers for remote homology detection and fold recognition. *BMC Bioinformatics*, 7:455, 2006. IF: **3.0**

28. **Huzefa Rangwala** and George Karypis. Profile-based direct kernels for remote homology detection and fold recognition. *Bioinformatics*, 21(23):4239–4247, 2005. IF: **5.32**

Conference Proceedings

1. Yue Ning, Yue Shi, Liangjie Hong, Huzefa Rangwala, and Naren Ramakrishnan. A gradient-based adaptive learning framework for efficient personal recommendation. In *Proceedings of the 2017 ACM Recommender Systems Conference*, pages 1–10, 2017. Acceptance Rate: 20.48%

2. Zhiyun Ren, Xia Ning, and Huzefa Rangwala. Grade prediction with temporal course-wise influence. In *Proceedings of the 2017 Educational Data Mining Conference*, pages 1–8, 2017. Acceptance Rate: 25%

3. Jeff Offutt, Paul Ammann, Kinga Dobolyi, Chris Kauffmann, Jaime Lester, Upsorn Praphamontripong, Huzefa Rangwala, Sanjeev Setia, Pearl Wang, and Liz White. A novel self-paced model for teaching programming. In *Proceedings of the Fourth (2017) ACM Conference on Learning@ Scale*, pages 177–180. ACM, 2017

4. Mohammad Arifur Rahman, Nathan Lapierre, Huzefa Rangwala, and Daniel Barbara. Clustering metagenome sequences using canopies. In *Proceedings of the 9th International Conference on Bioinformatics and Computational Biology*, pages 1–8. ISCA, 2017

5. Nathan LaPierre, Mohammad Arifur Rahman, and Huzefa Rangwala. Camil: Clustering and assembly with multiple instance learning for phenotype prediction. In *Bioinformatics and Biomedicine (BIBM), 2016 IEEE International Conference on*, pages 33–40. IEEE, 2016. Acceptance Rate: 69/361 = 19%

6. Azad Naik and Huzefa Rangwala. Embedding feature selection for large-scale hierarchical classification. *Proceedings of the 2016 IEEE International Conference on Big Data*, 2016. Acceptance Rate: 79/423 = 18.68%

7. Yifeng Gao, Jessica Lin, and Huzefa Rangwala. Iterative grammar-based framework for discovering variable-length time series motifs. *Proceedings of the IEEE 15th International Conference on Machine Learning and Applications*, 2016

8. Azad Naik and Huzefa Rangwala. Inconsistent node flattening for improving top-down hierarchical classification. *Proceedings of the 3rd IEEE International Conference on Data Science and Advanced Analytics*, 2016. Acceptance Rate: 24.3%

9. Omaima Almatrafi, Aditya Johri, Huzefa Rangwala, and Jaime Lester. Identifying course trajectories of high achieving engineering students through data analytics. *Proceedings of the 2016 American Society for Engineering Education Conference*, 2016

10. Wei Wang, Yue Ning, Huzefa Rangwala, and Naren Ramakrishnan. A multiple instance learning framework for identifying key sentences and detecting events. *Proceedings of the ACM International Conference on Information and Knowledge Management*, 2016. Acceptance Rate: 165/935 = 17.6%

11. Harishwaran Hariharan, Nima Aklaghi, Alex Baker, Jana Kosecka, Huzefa Rangwala, and Siddhartha Sikdar. Classification of motor intent in transradial amputees using sonomyography and spatio-temporal image analysis. In *SPIE Medical Imaging*, pages 97901Q–97901Q. International Society for Optics and Photonics, 2016

12. Yue Ning, Sathappan Muthiah, Huzefa Rangwala, and Naren Ramakrishnan. Modeling precursors for event forecasting via nested multi-instance learning. *Proceedings of ACM SIG KDD Conference*, 2016. Acceptance Rate: 8.9 %

13. Zhiyun Ren, Huzefa Rangwala, and Aditya Johri. Predicting performance on mooc assessments using multi-regression models. *Proceedings of the 2016 Educational Data Mining Conference*, 2016

14. Ranjeev Mittu, Jessica Lin, Yifeng Gao, Huzefa Rangwala, Peter Shargo, Joshua Robinson, Carolyn Rose, Paul Tunison, Matt Turek, Stephen Thomas, et al. Foundations for context-aware retrieval for proactive decision support. In *SPIE Defense+ Security*, pages 985108–985108. International Society for Optics and Photonics, 2016

15. Mack Sweeney, Jaime Lester, and **Huzefa Rangwala**. Next-term student grade prediction. In *Proceedings of the IEEE Conference on Big Data*, pages 1–6. IEEE, 2015

16. Azad Naik and **Huzefa Rangwala**. A ranking approach for hierarchical classification. In *Proceedings of the IEEE/ACM International Conference on Data Science and Advanced Analytics: Special Session on Statistical and Mathematical Tools for Data Science*, pages 1–10, Paris, FrancE, 2015

17. Anveshi Charuvaka and **Huzefa Rangwala**. Hiercost: Improving large scale hierarchical classification with cost sensitive learning. In *Machine Learning and Knowledge Discovery in Databases*, pages 675–690. Springer International Publishing, 2015

18. Jean Michel Rouly, **Huzefa Rangwala**, and Aditya Johri. What are we teaching?: Automated evaluation of cs curricula content using topic modeling. In *Proceedings of the eleventh annual International Conference on Computing Education Research*, pages 189–197. ACM, 2015

19. Xing Wang, Yifeng Gao, Jessica Lin, and **Huzefa Rangwala**. A machine learning approach to false alarm detection for critical arrhythmia alarms. In *Proceedings of the IEEE Conference on Machine Learning and Applications*, pages 1–6. IEEE, 2015. in press

20. Anvardh Nanduri and **Huzefa Rangwala**. Predicting new friendships in social networks. In *Proceedings of the IEEE Conference on Machine Learning and Applications*, pages 1–6. IEEE, 2015. in press

21. Nikhil Muralidhar, **Huzefa Rangwala**, and Sam Han. ecommending temporally relevant news content from implicit feedback data. In *Proceedings of the IEEE International Conference on Tools with Artificial Intelligence*, pages 1–8, Vietri sul Mare, Italy, 2015

22. Anveshi Charuvaka and **Huzefa Rangwala**. Approximate block coordinate descent for large scale hierarchical classification. In *Proceedings of the 30th Annual ACM Symposium on Applied Computing*, pages 837–844, Spain, 2015. ACM

23. Tanwistha Saha, **Huzefa Rangwala**, and Carlotta Domeniconi. Predicting preference tags to improve item recommendation. In *SIAM International Conference in Data Mining (SDM)*, pages 864–872, Vancouver, Canada, 2015

24. Anveshi Charuvaka and **Huzefa Rangwala**. Convex multi-task relationship learning using hinge loss. *IEEE Symposium on Computational Intelligence and Data Mining*, pages 63–70, 2014

25. Tanwistha Saha, **Huzefa Rangwala**, and Carlotta Domeniconi. Flip: Active learning for relational network classification. In *Proceedings of the European Conference on Machine Learning and Principles of Knowledge Discovery and Data Mining (ECML-PKDD)*, Nancy, France, September 2014. ECML. Acceptance Rate: **115/483 = 23.8 %**

26. **Huzefa Rangwala**, Anveshi Charuvaka, and Zeehasham Rasheed. Machine learning approaches for metagenomics. In *Proceedings of the European Conference on Machine Learning and Principles of Knowledge Discovery and Data Mining (ECML-PKDD)*, Nancy, France, September 2014. ECML. Nectar Track Acceptance Rate: **10/22 = 45.4 %**

27. Azad Naik, Anveshi Charuvaka, and **Huzefa Rangwala**. Classifying documents within multiple hierarchical datasets using multi-task learning. In *Tools with Artificial Intelligence (ICTAI), 2013 IEEE 25th International Conference on*, pages 390–397. IEEE, 2013. Acceptance Rate: **76/303 = 25%**

28. Sam Blasiak, **Huzefa Rangwala**, and Kathryn B. Laskey. Relevant subsequence detection with sparse dictionary learning. In *Proceedings of the European Conference on Machine Learning and Principles of Knowledge Discovery and Data Mining (ECML-PKDD)*, Prague, CZ, September 2013. ECML. Acceptance Rate: **111/443 = 25.0 %**

29. Guoxian Yu, Carlotta Domeniconi, **Huzefa Rangwala**, and Guoji Zhang. Protein function prediction using dependence maximization. In *Proceedings of the European Conference on Machine Learning and Principles of Knowledge Discovery and Data Mining (ECML-PKDD)*, Prague, CZ, September 2013. ECML. Acceptance Rate: **111/443 = 25.0 %**

30. Guoxian Yu, **Huzefa Rangwala**, Carlotta Domeniconi, Guoji Zhang, and Zili Zhang. Protein function prediction by integrating multiple kernels. In *23rd. International Joint Conference on Artificial Intelligence*, pages 1–7, Beijing, China, August 2013. AAAI. Acceptance Rate: **413/1473 = 28%**

31. Zeehasham Rasheed and **Huzefa Rangwala**. Mc-minh: Metagenome clustering using minwise based hashing. In *SIAM International Conference in Data Mining (SDM)*, Austin, TX, May 2013. SIAM. Acceptance Rate: **89/348 = 25.5%.**

32. Sam Blasiak, Sithu Sudarshan, and **Huzefa Rangwala**. Joint segmentation and clustering in text corpuses. In *SIAM International Conference in Data Mining (SDM)*, Austin, TX, May 2013. SIAM. Acceptance Rate: **89/348 = 25.5%.**

33. Tanwistha Saha, **Huzefa Rangwala**, and Carlotta Domeniconi. Sparsification and sampling of networks for collective classification. In *The 2013 International Conference on Social Computing, Behavioral-Cultural Modeling, & Prediction (SBP)*, pages 293–302, Washington, DC, April 2013. Springer. Acceptance Rate: **33/147 = 24%**

34. Anveshi Charuvaka and **Huzefa Rangwala**. Multi-task learning for classifying proteins with dual hierarchies. In *IEEE International Conference on Data Mining (ICDM)*, pages 834–839, Brussels, Belgium, December 2012. IEEE. Acceptance Rate: **20 %**

35. Tanwistha Saha, **Huzefa Rangwala**, and Carlotta Domeniconi. Multi-label classification using adaptive neighborhoods. In *Eleventh International Conference on Machine Learning and Applications (ICMLA)*, pages 427–432, Boca Raton, FL, December 2012. IEEE

36. Zeehasham Rasheed, **Huzefa Rangwala**, and Daniel Barbara. Lsh-div: Species diversity estimation using locality sensitive hashing. In *IEEE International Conference on Bioinformatics and Biomedicine (BIBM)*, pages 1–6, Philadelphia, USA, October 2012. IEEE. Acceptance Rate: **59/299 = 19.93%**

37. Guoxian Yu, Guoji Zhang, **Huzefa Rangwala**, Carlotta Domeniconi, and Zhiwei Yu. Protein function prediction using weak-label learning. In *Proceedings of the ACM Conference on Bioinformatics, Computational Biology and Biomedicine*, page 202–209. ACM, October 2012. Acceptance Rate: **33/159 = 20.7%**

38. Chaitanya Yavvari, Arnur G. Tokhtabayev, **Huzefa Rangwala**, and Angelos Stavrou. Malware characterization using behavioral components. In Igor V. Kotenko and Victor A. Skormin, editors, *International Conference on Mathematical Methods, Models and Architectures for Computer Network Security (MMM-ACNS)*, pages 226–239, St. Petersburg, Russia, October 2012

39. Sam Blasiak, **Huzefa Rangwala**, and Kathryn B. Laskey. A family of feed-forward models for protein sequence classification. In *Proceedings of the European Conference on Machine Learning and Principles of Knowledge Discovery and Data Mining (ECML-PKDD)*, number 2, pages 419–434, Bristol, UK, September 2012. ECML. Acceptance Rate: **105/443 = 23.0 %**

40. Guoxian Yu, Carlotta Domeniconi, **Huzefa Rangwala**, Guoji Zhang, and Zhiwei Yu. Transductive multi-label ensemble classification for protein function prediction. In *Proceedings of the 18th ACM SIGKDD international conference on Knowledge discovery and data mining*, pages 1077–1085, Beijing, China, August 2012. ACM. Acceptance Rate: **133/755 = 17.6%**

41. Pu Wang, Carlotta Domeniconi, **Huzefa Rangwala**, and Kathryn B. Laskey. Feature enriched nonparametric bayesian co-clustering. In *Proceedings of the 16-th Pacific Asia Conference on Knowledge Discovery and Data Mining (PAKDD)*, pages 517–529, Kuala Lumpur, Malaysia, May 2012. Acceptance Rate: **88/241 = 36.5%**

42. Sam Blasiak, **Huzefa Rangwala**, and Kathryn B. Laskey. Beam methods for the profile hidden markov model. In *2012 SIAM International Conference in Data Mining (SDM)*, pages 331–342, Anaheim, CA, May 2012. SIAM. Acceptance Rate: **53/363 = 14.6%**

43. Zeehasham Rasheed, **Huzefa Rangwala**, and Daniel Barbara. Efficient clustering of metagenomic sequences using locality sensitive hashing. In *SIAM International Conference in Data Mining (SDM)*, pages 1023–1034, Anaheim, CA, May 2012. SIAM. Acceptance Rate: **99/363 = 27.0%**

44. Nuttachat Wisittipanit, **Huzefa Rangwala**, and Patrick Gillevet. Analysis of microbiome data across inflammatory bowel disease patients. In *Tenth International Conference on Machine Learning and Applications (ICMLA)*, pages 200–205, 2011

45. Syed Faraz Mahmood and **Huzefa Rangwala**. Gpu-euler: Sequence assembly using gpgpu. In *13th IEEE International Conference on High Performance Computing and Communications (HPCC)*, pages 153–160, Banff, Canada, September 2011. IEEE

46. Tanwistha Saha, Carlotta Domeniconi, and **Huzefa Rangwala**. Detection of communities and bridges in weighted networks. In *International Conference on Maching Learning and Data Mining (MLDM)*, pages 584–598, New York, NY, August 2011. Acceptance Rate: **44/173 = 25%**

47. Chen Liang, Sharath Hiremagalore, Angelos Stavrou, and **Huzefa Rangwala**. Predicting network response times using social information. In *International Conference on Advances in Social Networks Analysis and Mining (ASONAM)*, pages 527–531, Taiwan, July 2011. IEEE

48. Sam Blasiak and **Huzefa Rangwala**. A hidden markov model variant for sequence classification. In *22nd International Joint Conference on Artificial Intelligence (IJCAI)*, pages 1192–1197, Barcelona, Spain, July 2011. Acceptance Rate: **400/1325 = 30%**

49. Zeehasham Rasheed and **Huzefa Rangwala**. Tac-elm: Metagenomic taxonomic classification with extreme learning machines. In *Proceedings of the International Conference on Bioinformatics and*

Computational Biology (BICoB), pages 92–97, New Orleans, LA, March 2011. ISCA. *BEST PAPER AWARD*

50. Sheng Li and **Huzefa Rangwala**. An information theoretic approach for the analysis of rna and dna binding sites. In *Proceedings of the International Conference on Bioinformatics and Computational Biology (BICoB)*, pages 184–189, New Orleans, LA, March 2011. ISCA

51. Nuttachat Wisittipanit, **Huzefa Rangwala**, Masoumeh Sikaroodi, Ali Keshavarzian, Ece A. Mutlu, and Patrick Gillevet. Profiling microbial communities using ssu rrna sequence and lh-pcr data. In *Proceedings of the International Conference on Bioinformatics and Computational Biology (BICoB)*, pages 190–195, New Orleans, LA, March 2011. ISCA

52. Anveshi Charuvaka and **Huzefa Rangwala**. Evaluation of short read metagenomic assembly. In *IEEE International Conference on Bioinformatics and Biomedicine (BIBM)*, pages 171–178, Hong Kong, December 2010. IEEE. Acceptance Rate: **61/355 = 17.2%**

53. **Huzefa Rangwala** and Salman Jamali. Co-participation networks using comment information. In *The International AAAI Conference on Weblogs and Social Media (ICWSM)*, pages 315–318. AAAI, May 2010

54. **Huzefa Rangwala**. Multiple kernel learning for fold recognition. In *Proceedings of the International Conference on Bioinformatics and Computational Biology (BICoB)*, pages 7–12, Hawaii, March 2010. ISCA

55. Salman Jamali and **Huzefa Rangwala**. Digging digg: Comment mining, popularity prediction, and social network analysis. *Web Information Systems and Mining, International Conference on*, pages 32–38, November 2009

56. **Huzefa Rangwala**, Christopher Kauffman, and George Karypis. A kernel framework for protein residue annotation. In *Proceedings of the 13-th Pacific Asia Conference on Knowledge Discovery and Data Mining (PAKDD)*, pages 439–451, Bangkok, Thailand, April 2009. Acceptance Rate: **39/338 = 11.54%**

57. Ruinan Zhang, **Huzefa Rangwala**, and George Karypis. Genome alignments using mpi-lagan. In *IEEE International Conference on Bioinformatics and Biomedicine (BIBM)*, pages 437–440. IEEE, November 2008

58. Rezwan Ahmed, **Huzefa Rangwala**, and George Karypis. Toptmh: Topology predictor for transmembrane alpha-helices. In *Proceedings of the European Conference on Machine Learning and Principles of Knowledge Discovery and Data Mining (ECML-PKDD)*, pages 23–38, Antwerp, Belgium, September 2008. LNAI. Acceptance Rate: **84/521 = 16.7%**

59. Chris Kauffman, **Huzefa Rangwala**, and George Karypis. Improving homology models for protein-ligand binding sites. *Comput Syst Bioinformatics Conf*, 7:211–222, August 2008. Acceptance Rate: **30/135 = 22.2%**

60. **Huzefa Rangwala** and George Karypis. frmsdalign: Protein sequence alignment using predicted local structure information for pairs with low sequence identity. In *Proceedings of the 6-th Asia Pacific Bioinformatics Conference (APBC)*, pages 111–122, Kyoto, Japan, January 2008. Acceptance Rate : **33.33%**

61. **Huzefa Rangwala** and George Karypis. frmsdpred: predicting local rmsd between structural fragments using sequence information. *Comput Syst Bioinformatics Conf*, 6:311–322, August 2007. Acceptance Rate: **30/135 =22.22%**

62. **Huzefa Rangwala** and George Karypis. Incremental window-based protein sequence alignment algorithms. In *European Conference on Computational Biology (ECCB)*, Eilat, Israel, January 2007. ISCB

Workshop Proceedings

1. Qian Hu and Huzefa Rangwala. Enriching course-specific regression models with content features for grade prediction. In *Proceedings of 2017 KDD Workshop on Advancing Education with Data*, pages 1–7, 2017

2. Nathan LaPierre and **Huzefa Rangwala**. Predicting clinical phenotype using otu-based metagenome representation. *Proceedings of the IEEE International Conference in Data Mining Workshop on Biological Data Mining and Applications in Healthcare*, 2015

3. Zeehasham Rasheed and **Huzefa Rangwala**. A map-reduce framework for clustering metagenomes. In *Proceedings of the 12th IEEE International Workshop on High Performance Computational Biology (HiCOMB)*, Boston, MA, May 2013. IEEE

4. Nuttachat Wisittipanit, **Huzefa Rangwala**, Patrick Gillevet, Masoumeh Sikaroodi, Ece A. Mutlu, and Ali Keshavarzian. Svm-based classification and feature selection methods for the analysis of inflammatory bowel disease microbiome data. In Jun Huan, Jake Chen, and Mohammed Zaki, editors, *Proceedings of the 9th International Workshop on Data Mining in Bioinformatics*, pages 1–8, July 2010

5. **Huzefa Rangwala**, Chris Kauffman, and George Karypis. A generalized framework for protein sequence annotation. In *Machine Learning in Computational Biology Workshop co-located with NIPS 2007*, Whistler, Canada, November 2007. NIPS

6. **Huzefa Rangwala**, Eric Lantz, Roy Musselman, Kurt Pinnow, Brian Smith, and Brian Wallenfelt. Massively parallel blast for the blue gene/l. In *In High Availability and Performance Computing Workshop*, Santa Fe, NM, October 2005

Book Chapters

1. Guoxian Yu, Huzefa Rangwala, and Carlotta Domeniconi. Annotating proteins with incomplete label information. *Pattern Recognition in Computational Molecular Biology: Techniques and Approaches*, pages 585–608, 2016

2. **Huzefa Rangwala** and George Karypis. *Introduction to Protein Structure Prediction: Methods and Algorithms*, chapter Introduction to Protein Structure, page 1–14. Wiley, 2010

3. **Huzefa Rangwala**. *Introduction to Protein Structure Prediction: Methods and Algorithms*, chapter A survey of remote homology detection methods, page 165–194. Wiley, 2010

4. **Huzefa Rangwala** and George Karypis. *Biological Data Mining*, chapter Predicting Local Structure and Function of Proteins, pages 137–157. CRC Press, 2009

5. **Huzefa Rangwala**, Kevin DeRonne, and George Karypis. *Knowledge Discovery in Bioinformatics: Techniques, Methods, and Applications*, chapter Protein Structure Prediction using String Kernels, page 145–168. John Wiley & Sons, Inc., 2007

Invited Talks/Keynotes/ Tutorials/Presentations

November 2017	*Keynote Speaker at the SERecSys: Second Workshop on Semantics-Enabled Recommender Systems held in conjunction with IEEE ICDM 2017, New Orleans, LA.*
August 2017	*Tutorial: Large Scale Hierarchical Classification: Foundations, Algorithms and Applications* by **Huzefa Rangwala** and Azad Naik at ACM/SIGKDD sponsored KDD 2017, Halifax, Nova Scotia, Canada.
April 2017	*Tutorial: Opportunities, Challenges and Methods for Higher Education Data Mining* by **Huzefa Rangwala**, Aditya Johri, Asmaa El Badrawy and George Karypis presented at SIAM International Conference in Data Mining 2017, Houston, TX.
March 2017	*Lead at Round-Table Presentation: Teaching Data Science* presented at NSF CyberLearning 2017 conference, Arlington, VA.
September 2016	*Large Scale Hierarchical Classification and Multi-Task Learning* at Department of Computer Science, Indiana University Purdue University, Indianapolis, IN.
May 2016	*Tutorial: Large Scale Hierarchical Classification: Foundations, Algorithms and Applications* by **Huzefa Rangwala** and Azad Naik at SIAM International Conference in Data Mining 2016, Miami, FL.
April 2016	*Panelist at Learning analytics in higher education: Exploring big data on campus* held in conjunction with American Educational Research Association (AERA) Meeting, Washington, DC.
October 2015	*Large Scale Hierarchical Classification and Multi-Task Learning* at Department of Computer Science, Virginia Tech, Falls Church, VA.
April 2015	*Machine Learning Approaches for Annotating BioData* at National Institutes of Aging, Baltimore, MD.
February 2015	*Machine Learning Approaches for Annotating BioData* at Department of Computer Science, University of Houston, Houston, TX.
November 2014	*Machine Learning Approaches for Annotating Biological Datasets* at University of North Carolina, Charlotte, NC.
October 2014	*Large Scale Hierarchical Classification: Alleviating Big Data Complexity* at Army Research Labs, Aberdeen, MD.
August 2014	*Machine Learning Approaches for Annotating BioData* at MedStar Innovation Institute, Washington, DC.
April 2014	*Machine Learning Approaches for Annotating Biological Data* at National Institute of Standards and Technology (NIST), Gaithersburg, MD.
March 2014	~~*Spring*~~ *Summer days of writing NSF Career proposals* at NSF CISE CAREER Writing Workshop 2014, Arlington, VA.
September 2012	*Jigsaws and Competitions: Interactive Ways of Learning* at Innovations in Teaching and Learning Conference, George Mason University, VA.
March 2012	*Computational Framework for Analyzing Metagenomes* at the Genome Sciences Department, Mount Sinai School of Medicine, New York, NY.
March 2012	*Creating and Analyzing Co-Participation Networks* at the Computer Science Department, Temple University, Philadephia, PA.

March 2012	*An Integrated Machine Learning Framework for Analyzing Protein-Ligand Interaction Data* at the Bioinformatics Department, University of North Carolina-Charlotte, NC.
February 2012	*An Integrated Machine Learning Framework for Analyzing Protein-Ligand Interaction Data* at the Computer Science Department, University of Maryland, Baltimore County, MD.
November 2011	*Jigsaws and Competitions* at the Frontiers of Engineering Education Symposium, National Academies of Engineering, Irvine, CA.
March 2010	*Bio-informatics Opportunities in Next Generation Sequencing* at the Biotechnology Department, Georgetown University, Washington, DC.
November 2009	*Interactions using Kernel-based Methods* at the Applied Mathematics Department, George Washington University, Washington, DC.
May 2009	*String Kernels for Structure Prediction* at the Computer Science Department, Virginia Tech. University (National Capital Region), VA.
September 2008	*Protein Structure and Function Prediction using Kernel Methods* at the Bioinformatics Department, George Mason University, VA.

Patents

1. Nikhil Muralidhar, Sam Han, and Huzefa Rangwala. Systems and methods for recommending temporally relevant news content using implicit feedback data, May 11 2017. US Patent App. 15/346,788

Software Developed

DMGrader	`https://github.com/rangwala/dmgrader`
NTSGP	`https://github.com/macks22/ntsgp`
HierCost	`https://cs.gmu.edu/~mlbio/HierCost/`
svmPRAT	`http://www.cs.gmu.edu/~mlbio/svmprat`
MONSTER	`http://bio.dtc.umn.edu/monster`
TAC-ELM	`http://www.cs.gmu.edu/~mlbio/TAC-ELM/`
LSH-DIV	`http://www.cs.gmu.edu/~mlbio/LSH-DIV`
MC-MinH	`http://www.cs.gmu.edu/~mlbio/MC-MinH/`
MrMC-MinH	`http://www.cs.gmu.edu/~mlbio/MrMC-MinH/`
profile-kernel-codes	`http://bioinfo.cs.umn.edu/supplements/profile-kernels/`

Teaching Experience

At Department of Computer Science, George Mason University.

Class	Semester	Enrol.	Instructor Eval. ( ) shows Dept. Mean	Course Eval.
INFS 755: *Data Mining*	Fall 2008	25	**4.35** (4.31)	**4.10** (4.04)
CS 795: *Biological Sequence Analysis*	Spring 2009	25	**4.38** (4.36)	**4.06** (4.11)
CS 795: *Biological Data Mining*	Fall 2009	13	**4.73** (4.25)	**4.45** (4.03)
CS 795: *Biological Sequence Analysis*	Spring 2010	18	**4.91** (4.31)	**4.55** (4.06)
CS 465: *Computer Systems Architecture*	Fall 2010	46	**4.71** (4.28)	**4.26** (4.08)
CS 750: *Data Mining*	Spring 2011	18	**4.72** (4.28)	**4.67** (4.09)
INFS 755: *Data Mining*	Fall 2011	34	**4.79** (4.25)	**4.52** (4.08)
CS 465: *Computer Systems Architecture*	Fall 2012	48	**4.55** (4.27)	**4.10** (4.08)
CS 659: *Data Mining*	Spring 2013	32	**4.81** (4.29)	**4.69** (4.13)
CS 465: *Computer Systems Architecture*	Fall 2013	43	**4.69** (4.30)	**4.56** (4.12)
CS 635: *Foundations of Parallel Computing*	Spring 2014	15	**4.85** (4.19)	**4.92** (3.98)
CS 465: *Computer Systems Architecture*	Fall 2014	39	**4.77** (4.17)	**4.48** (3.91)
CS 695: *Social and Information Network Analysis*	Spring 2015	15	**4.83** (4.14)	4.83 (3.96)
CS 584: *Data Mining (Taught at TASC)*	Fall 2015	12	**4.67** (4.18)	4.67 (4.03)
CS 584: *Data Mining*	Fall 2016	32	**4.79** (4.23)	**4.79** (4.07)
CS 367: *Computer Systems and Programming*	Spring 2017	68	**4.57 (4.21)**	**4.17** (4.05)

Student Mentoring

Ph.D. Advisees

Graduated († - Winners of Computer Science Department's Outstanding Graduate Student Award.

1. **Dr. Azad Naik**, *Ph.D. in CS*, Fall 2013-Spring 2017. Graduation Date: 02/2017. *Hierarchical Classification with Rare Categories and Inconsistencies.* Now: Data Scientist, Microsoft.

2. **Dr. Anveshi Charuvaka** †, *Ph.D. in CS*, Fall 2009-Fall 2015. Graduation Date: 09/2017. *Regularized Learning in Multiple Tasks With Relationships.* Now: Research Scientist, GE Global Research.

3. **Dr. Tanwistha Saha**, *Ph.D. in CS*, (Co-Advised with Prof. Domeniconi), Summer 2009-Fall 2014. Graduation Date: 11/2014. *Learning in Relational Networks.* Now: Advanced Analytics Development and Deployment Engineer (R&D), Intel Corporation.

4. **Dr. Samuel Blasiak** †, *Ph.D. in CS*, Summer 2010-Fall 2013. Graduation Date: 08/2013. *Thesis: Latent Variable Models of Sequences for Classification and Discovery.* Now: Software Engineer at Google, Inc.

5. **Dr. Zeehasham Rasheed**, *Ph.D. in CS*, Spring 2010-Spring 2013. Graduation Date: 04/2013. *Thesis: Data Mining Framework for Metagenome Analysis.*. Now: Data Scientist at AOL, Inc.

6. **Dr. Nuttachat Wisittipanit**, *Ph.D. in BINF*, (Co-Advised with Prof. Gillevet), Spring 2009-Spring 2012. Graduation Date: 03/2012. *Thesis: Machine Learning Approach for Profiling Human Microbiome.*

In Progress

1. **Ms. Zhiyun Ren**, *Ph.D. in CS*, Fall 2014-Present.

2. **Mr. Qian Hu**, *Ph.D in CS*, Fall 2015-Present.

3. **Mr. Mohammad Arifur Rahman**, *Ph.D. in CS*, Fall 2015-Present.

M.S. Thesis Advisees

Graduated

1. **Mackenzie Sweeney**, *M.S. in CS*, Spring 2015-Summer 2016. *Thesis: Intelligent Degree Planning Systems: Advancements in Personalized Achievability Rating.*

2. **Nikhil Muralidhar**, *M.S. in CS*, Spring 2014-Fall 2015. *Thesis: Recommending Temporally Relevant News Content Using Implicit Feedback Data: A Tag-based Approach.*

3. **Azad Naik**, *M.S. in CS*, Fall 2012-Spring 2013. *Thesis: Using Multi-Task Learning for Large-Scale Document Classification.*

4. **Syed Mahmood**, *M.S. in CS*, Fall 2009-Fall 2012. *Thesis: GPU-based Eulerian Assembly of Genomes.*

5. **Ammar Naqvi**, *M.S. in BINF*, (Co-Advised with Prof. Gillevet), Spring 2009-Fall 2009. *Thesis: Understanding and analyzing the human microbiome: taxonomy identification and potential interactions.*

6. **Salman Jamali**, *M.S. in CS*, Spring 2009-Summer 2009. *Thesis: Comment Mining, Popularity Prediction and Social Network Analysis.*

In Progress

1. **Sneha Nagpaul**, *M.S. in CS*, Spring 2017-Present.

M.S. Project Advisees

1. **Darron Fuller**, *M.S. in Data Analytics Engineering*, Spring 2017.

2. **Kyle Jackson**, *M.S. in Data Analytics Engineering*, Spring 2017.

3. **Na-Young Shin**, *M.S. in BINF*, Fall 2010.

4. **Ronak Shah**, *M.S. in BINF*, Spring 2010.

5. **Shanmuga Chiripiralla**, *M.S. in BINF*, Spring 2010.

6. **Rithika Ganni**, *M.S. in BINF*, Spring 2010.

7. **Meher Boorgula**, *M.S. in BINF*, Spring 2010.

Undergraduate Mentees

1. **Nathan LaPierre**, *B.S. in CS*, Fall 2015-Summer 2016 (Sponsor: NSF).
2. **Abigail Justen**, *B.S. in CS*, Summer 2016. (Sponsor: NSF BIGDATA).
3. **Thi Nguyen**, *B.S. in CS*, Summer 2016. (Sponsor: NSF BIGDATA).
4. **Ameer Takaddein**, *B.S. in CS*, Summer 2016. (Sponsor: NSF BIGDATA).
5. **Jason Ko**, *B.S. in CS*, Summer 2016. (Sponsor: NSF BIGDATA).
6. **Michel Jean Rouly**, *B.S. in CS*, Summer 2015 (Sponsor: NSF).
7. **Anisha Kolla**, *B.S. in CS*, Spring 2013. (Sponsor: URSP, OSCAR, GMU).
8. **Hozaifah Zafar**, *B.S. in CS*, Spring 2013-Present. (Sponsor: USRP, OSCAR, GMU).
9. **Emily Eastlake**, *B.S. in BENG*, Summer 2012. (Sponsor: SURE Program, Bioengineering, GMU).
10. **Liban Hassan**, *B.S. in ECE*, Summer 2011. (Sponsor: NSF LSAMP Program, GMU).
11. **Amanda Zouzolou**, *B.S. in BENG*, Summer 2011. (Sponsor: SURE Program, Bioengineering, GMU).
12. **Roderick Tolbert**, *B.S. in CS*, Summer 2011. (Sponsor: NSF REU to Rangwala).
13. **Charles Sweet**, *B.S. in CS*, Summer 2010-Fall 2012. (Sponsor: UAP Program, GMU).
14. **Minh Bui**, *B.S. in CS*, Summer 2010. (Sponsor: UAP Program, GMU).

High School Mentees

1. **Rupali Dhumne** *Thomas Jefferson High School, Alexandria, VA*, Fall 2015-Spring 2016.
2. **Mr. Daniel McKinney** *Thomas Jefferson High School, Alexandria, VA*, Fall 2014.
3. **Mr. Ashwin Sekar**, *Poolesville Maryland High School, MD*, Summer 2013.
4. **Mr. Eric Tao**, *Thomas Jefferson High School, Alexandria, VA*, Summer 2010-Fall 2012.
5. **Mr. Abbas Idris**, *Governor's School, Prince William, VA*, Fall 2011-Spring 2012.

Student Committee Membership (Besides Advisees). † - students at Virgina Tech. University.

Student	Program	Advisor	Grad. Date
Matt Revelle	Ph.D. in Computer Science	Carlotta Domeniconi	-
Christopher Siwy	Ph.D. in Bioinformatics	Dmitri Klimov	-
Cheol Young Park	Ph.D. in Information Technology	Kathryn Laskey	-
Arsalan Mousavian	Ph.D. in Computer Science	Jana Kosecka	-
Rohan Patil	Ph.D. in Bioinformatics	Patrick Gillevet	-
Xing Wang	Ph.D. in Computer Science	Jessica Lin	-
Rohan Khade	Ph.D. in Computer Science	Jessica Lin	-
Wei Wang†	Ph.D. in Computer Science	Naren Ramakrishnan	-
Yue Ning†	Ph.D. in Computer Science	Naren Ramakrishnan	-
Sujal Dash†	Ph.D. in Computer Science	Wuchun Feng	-
Dr. Upsorn Praphamontripong	Ph.D. in Information Technology	Jeff Offutt	Spring 2017
Dr. Irina Hashmi	Ph.D. in Computer Science	Amarda Shehu	Fall 2015
Dr. Keith Sullivan	Ph.D. in Computer Science	Sean Luke	Spring 2015
Dr. Charles Weko	Ph.D. in Statistics	Anand Vidyashankar	Spring 2015
Dr. Gautum Singh	Ph.D. in Computer Science	Jana Kosecka	Fall 2014
Dr. Joshua Church	Ph.D. in Information Technology	Ami Motro	Fall 2014
Dr. Daniel Saxton	Ph.D. in Statistics	Anand Vidyashankar	Spring 2014
Dr. Hoang Minh Tuan	Ph.D. in Bioinformatics	Saleet Jaffri	Summer 2014
Dr. Nada Baset	Ph.D. in Computer Science	Harry Wechsler	Fall 2012.
Dr. Andmorgan Fisher	Ph.D. in Environmental Sciences	Patrick Gillevet	Fall 2012.
Dr. Sean Smith	Ph.D. in Bioinformatics	Patrick Gillevet	Fall 2011.
Dr. Pu Wang	Ph.D. in Computer Science	Carlotta Domeniconi	Spring 2011
Dr. Andrew Heekin	Ph.D. in Bioinformatics	Patrick Gillevet	Summer 2011.
Dr. Keenan Amundsen	Ph.D. in Bioinformatics	Don Seto	Fall 2009.

Faculty Mentoring

Computer Science Department

- Prof. Yotam Gingold, Fall 2013-Present.
- Prof. Mark Snyder, Fall 2014-Present.
- Prof. Thomas Latoza, Fall 2015-Present.
- Prof. Song Min Kim, Fall 2016-Present.
- Prof. Parth Pathak, Fall 2016-present.
- Prof. Jonathan Bell, Fall 2016-Present.

Across University

- Prof. Carolina Salvador Morales, Bioengineering,

- Assisted Prof. Parag Chitnis (Bioengineering) in Drafting CAREER proposal (Spring 2017).

Service

University and Departmental Service

- Chair of the Computer Science Web Development Committee, Spring 2016-Present.
- Member of University-wide Computing Infrastructure Committee, George Mason University, Spring 2017-Present.
- Member of University-wide iPASS leadership Committee, George Mason University, Fall 2013-Present.
- Member of Web Development and Design Committee, Computer Science Department, George Mason University, Fall 2013-Present.
- Computer Science Tenure-Track Faculty Recruiting Committee, Spring 2017.
- Computer Science Tenure-Track Faculty Recruiting Committee, Spring 2016.
- Doctoral Admissions Committee, Fall 2016-Present.
- Applied Information Technology Recruiting Committee, Spring 2015-Summer 2015.
- Computer Science Instructional Faculty Recruiting Committee, Spring 2014.
- GMU Teaching Faculty Excellence Selection Committee, CTFE, George Mason University, Fall 2014-Spring 2015.
- Students as Scholars Assessment and Program Design Subcommittee, George Mason University, Fall 2012-Present.
- Undergraduate Studies Committee, Computer Science Department, George Mason University, Fall 2012-Present.
- Bioengineering Committee, Computer Science Department, George Mason University, Fall 2008-Present.
- Bioengineering Recruiting, Computer Science Department, George Mason University, Fall 2008-Spring 2009.
- Bioengineering Recruiting Committee, Volgenau School of Engineering, George Mason University, Fall 2009-Spring 2010.
- Undergraduate Studies Committee, Computer Science Department, George Mason University, Fall 2009-Spring 2010.
- Guest Speaker for New Faculty, Center for Teaching and Learning Services, George Mason University, Fall 2009.
- Computing Committee, Computer Science Department, George Mason University, Fall 2010-Fall 2015.
- Presentation Teaching Recipes at the Mini-Teaching Symposium organized by the Computer Science Department, George Mason University.

Professional Service

- Panelist at NSF: 2008(1), 2012(1), 2014(2), 2015(1), 2016(3), 2017 (2). *() shows the number of panel participations in a year.*
- Panelist at NIH: 2017(1).
- Tutorial Chair for the 2017 IEEE International Conference in Data Mining (November 2017).
- Faculty Mentor at the 2017 Broadening Participation In Data Mining, KDD 2017 (August 2017).
- Teaching Data Science Roundtable Lead at the NSF CyberLearning Conference (March 2017).
- Guest Editorial Board for Journal Track of European Conference in Machine Learning (2014,2015,2016).
- Editorial Board Member for Machine Learing Journal (2017-2020).
- Editorial Board Member for Pattern Recognition Journal (2017).
- Editorial Board Member for Eurasip Journal of Bioinformatics and Systems Biology (2015-2017).
- Program Committee Member for KDD, ICDM, SDM, ASONAM, ECML, ICPR (2008-2013), CIKM, DSAA.
- Senior Program Committee Member for BigData (2017).
- Program Chair for the 2015 IEEE Educational Assessment Workshop (November 2015).
- Program Chair for the 2014 NSF Career Writing Workshop held at Arlington, VA (March 2014).
- Program Chair for the 12th International Workshop on Data Mining in Bioinformatics (BioKDD 2013).
- Program Chair for Career Mentoring Network Session and Panel at IEEE International Conference in Data Engineering (ICDE 2012), Washington, DC.
- Local and Sponsorship Chair for IEEE International Conference in Data Engineering (ICDE 2012), Washington, DC.
- Panelists for NSF Graduate Fellowship Review: 2011, 2012, 2013.
- Co-Chair of 1st Knowledge Discovery in Health Care and Medicine Workshop (KD- HCM) held in conjunction with ECML/PKDD September 2011, Athens, Greece.
- Reviewer for journals: BIOINFORMATICS, BMC Bioinformatics, BMC Structural Biology, Proteins, Transactions in Computational Biology and Bioinformatics, Journal of Bioinformatics and Computational Biology, Computers in Biology and Medicine, Journal of Intelligent Information Systems, Journal of Royal Society Interface, EURASIP, Journal of Statistical Analysis and Data Mining, Journal of Parallel and Distributed Computing.