Curriculum Vitae for: Asim Waqas, Ph.D. Student
September 10, 2023

Current Position:

Graduate Research Fellow
Department of Machine Learning
Moffitt Cancer Center and Research Institute
12902 Magnolia Drive
Tampa, FL 33612
asim.waqas@moffitt.org

Current Academic Appointments:

Ph.D. Student / Graduate Research Fellow
Electrical Engineering Department
University of South Florida
awaqas@usf.edu

Advisors:

Research Advisor: Dr. Ghulam Rasool, ghulam.rasool@moffitt.org
Academic Advisor: Dr. Mia Naeini, mnaeini@usf.edu

Education:

2020-2024	Ph.D. (in progress), Electrical Engineering, University of South Florida
2009-2012	MS in Computer Engineering, Centre for Advanced Studies in Engineering (CASE), Islamabad, Pakistan
2001-2004	B.E. Computer Engineering, National University of Sciences and Technology (NUST), Islamabad, Pakistan

Academic Appointments and Teaching Experience:

2020-today	Graduate Research Fellow, Rowan University / University of South Florida
Spring 2021	Teaching Assistant: Digital Logic Design, Electrical and Computer Engineering Department, Rowan University, Glassboro, NJ, USA.
Spring 2020	Teaching Assistant: Digital Logic Design, Electrical and Computer Engineering Department, Rowan University, Glassboro, NJ, USA.
Jun 29, 2022	Teaching Assistant: Building Transformer-based Natural Language Processing, NVIDIA Deep Learning Institute, Public Student Workshop, North America, Virtual
Aug 9-11, 2021	Teaching Assistant: Fundamentals of Deep Learning, Workshop organized at the 64th IEEE International Midwest Symposium on Circuits and Systems, Virtual (https://www.mwscas2021.org/workshop-and-tutorials)
Feb 22, 2020	Teaching Assistant: Fundamentals of Deep Learning for Computer Vision, NVIDIA Sponsored Workshop, Rutgers Business School, Rutgers University

Honors and Awards

1. 3rd position in the Annual 2023 Bio-Data Club Hackathon - project "Generating, visualizing, and quantitatively analyzing graphs of multi-omics data" , December 2022.
2. University of South Florida, Graduate Assistantship Award, 2022-2024.
3. Rowan University, Graduate Assistantship Award, 2020-2022.
4. Named to the Dean's List for academic excellence throughout Ph.D. academic enrollment period.
5. 1st position in district High School (Pre- Engineering competitive exam) with 81.9 %, A+ grade,
6. Won the Federal Board (FBISE) Scholarship for Higher Education, Pakistan.
7. 3rd position in district Matriculation competitive exam with 85.76 %, A+ grade.

Research & Publications (Google Scholar link)

Under-Review

1. **Asim Waqas**, Aakash Tripathi, Ravi P. Ramachandran, Paul Stewart, and Ghulam Rasool, "Multimodal Data Integration for Oncology in the Era of Deep Neural Networks: A Review", under review in IEEE Transaction on Neural Networks and Learning Systems. Preprint available at: https://arxiv.org/abs/2303.06471.
2. **Asim Waqas**, Marilyn M. Bui, Eric F. Glassy, Issam El Naqa, Piotr A. Borkowski, Andrew A. Borkowski, Ghulam Rasool, "Revolutionizing Digital Pathology with the Power of Generative Artificial Intelligence and Foundation Models", under review in Elsevier Laboratory Investigation, 2023.
3. **Asim Waqas**, Warda Shahnawaz, Javeria Naveed, Muhammad Shoaib Asghar and Ghulam Rasool, "Advancements in Integrating Multimodal Data for Enhanced Insights in Digital Pathology", under submission in BJR Artificial Intelligence, 2023.
4. Aakash Tripathi, **Asim Waqas**, Kavya Venkatesan, Yasin Yilmaz, and Ghulam Rasool, "Building Flexible and Scalable Multimodal Oncology Datasets", under submission in MDPI Sensors, 2023.

Peer-Reviewed Publications

5. **Asim Waqas**, Nidhal Bouaynaya, Hamza Farooq, and Ghulam Rasool, "Exploring Robust Architectures for Deep Artificial Neural Networks", Nature Communication Engineering 1, 46 (2022). (https://doi.org/10.1038/s44172-022-00043-2).
6. David S. Specht, **Asim Waqas**, Ghulam Rasool, Charles Clifford, and Nidhal Bouaynaya. "Intelligent Helipad Detection and (Grad-Cam) Estimation Using Satellite Imagery". No. TRBAM-21-01973. 2021.

Book Chapters

7. **Asim Waqas**, Dimah Dera, Ghulam Rasool, Nidhal Bouaynaya, and Hassan M. Fathallah-Shaykh, "Brain Tumor Segmentation and Surveillance with Deep Artificial Neural Networks", In: Elloumi M. (eds) Deep Learning for Biomedical Data Analysis. Springer, Cham, 2021. https://doi.org/10.1007/978-3-030-71676-9_13.

Posters

8. **Asim Waqas**, Aakash Tripathi, Ashwin Mukund, Paul Stewart, Mia Naeini, Ghulam Rasool. "Hierarchical Multimodal Learning on Pan-Squamous Cell Carcinomas for Improved Survival Outcomes." USF AI+X Symposium, 29 September 2023.
9. **Asim Waqas** and Stewart, P and Farooq, H and Rasool, G. "Integrative Relational Learning on Multimodal Cancer Data for Improved Clinical Predictions." The 19th Annual Conference for the Mid-South Computational Biology and Bioinformatics Society MCBIOS 202. campus of University of Dallas with the theme of "Big Data and Artificial Intelligence for Genomics and Therapeutics" from March 15-17, 2023.

Other Education:

1. NeuroMatch Academy (NMA) 2020. (https://academy.neuromatch.io/)
2. NVIDIA DLI certified in Fundamentals of Deep Learning. (https://www.nvidia.com/en-us/training/instructor-led-workshops/
3. Student member for University City Science Center's QED Proof-of-Concept program. (www.sciencecenter.org/discover/qed)
4. Coursera Deep Learning Specialization Certificate.
5. Coursera AI for Medical Diagnosis Certificate.
6. IBM WebSphere Application Server Suite Specialist.
7. IBM certified Field Replaceable Unit (FRU) Engineer.
8. Certified RHEL administrator.