

AYMAN ABAID

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EDUCATION

Ph.D., in Computer Science

Sept 2023-March 2027(expected)

University of Galway

Galway, Ireland

Research: Developing deep learning and computer vision techniques for the assessment of cardiovascular disease. Utilizing and adapting generative AI and multi-modal LLMs for disease diagnosis.

Relevant Coursework: Deep Learning, Tools and Techniques for Data Analytics

Masters in Computer Science

Sept 2020- Dec 2022

Lahore University of Management Sciences

Lahore, Pakistan

Thesis: Framework of Medium Term Load Forecast for Pakistan's Power Market.

Relevant Coursework: Deep Learning, Data Mining, Service Oriented Computing

Bachelors in Computer Science

Sept 2016- May 2020

National University of Computer and Emerging Sciences - FAST

Lahore, Pakistan

Research: Emotion detection and recognition from tweets using NLP techniques.

Relevant Coursework: Algorithms and programming, Data Warehouse, Probability, and Statistics

Mediterranean Machine Learning Summer School

Sept 2024

Hosted by Google DeepMind. Acceptance rate: ~20%

PUBLICATIONS

Journals

- **Abaid, A.**, Farooq, M.A., Hynes, N., Corcoran, P., and Ullah, I. (2025). "DiffusionTBAD: Rendering High-Quality CTA Images for Type-B Aortic Dissection Diagnosis." Submitted to *Computers in Biology and Medicine*.
- **Abaid, A.**, Ilancheran, S., Iqbal, T., Hynes, N., and Ullah, I. (2024). "Exploratory Analysis of Type-B Aortic Dissection (TBAD) Segmentation in 2D CTA Images Using Various Kernels." *Computerized Medical Imaging and Graphics*, 118, 102460..

Conferences

- **Abaid, A.**, Farooq, M.A., Hynes, N., Corcoran, P., and Ullah, I. (2024). "Synthesizing CTA Image Data for Type-B Aortic Dissection Using Stable Diffusion Models." *46th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, Orlando, FL, USA .
- **Abaid, A.**, and Ullah, I. (2024, August). "To Train, or Not to Train: Exploring Foundation Models for TBAD Segmentation." Presented at the *Irish Machine Vision and Image Processing Conference (IMVIP 2024)*, published in *IET Conference Proceedings CP887 (Vol. 2024, No. 10, pp. 323–326)*.
- Kamal, M., **Abaid, A.**, Abid, S., and Shamail, S. (2021, September). "FACER-AS: An API Usage-Based Code Recommendation Tool for Android Studio." In *2021 IEEE International Conference on Software Maintenance and Evolution (ICSME)* (pp. 609–613). IEEE.

Workshops

- **Abaid, A.**, Guidone, G., Iqbal, T., Sharif, F., & Ullah, I. (2025). *3D CT-based coronary calcium assessment: A feature-driven machine learning framework*. Paper submitted to the *Applications of Medical AI (AMAI) Workshop at MICCAI 2025*.

- Farooq, M. A., **Abaid, A.**, Ullah, I., & Corcoran, P. (2024). *A comparative study on diffusion sampling methods across diverse medical imaging modalities*. Accepted at the *Workshop on Generative AI for Synthetic Medical Data, ACCV 2024*.

WORK EXPERIENCE

Graduate Research Assistant

Nov 2020 - May 2022

Energy Informatics Group , Lahore University of Management Sciences

- Built annual and monthly energy demand forecasting models, improving accuracy by 16% using R for national and DISCO-level predictions.
- Developed interactive R Shiny tools, including a web app for short-term load forecasting and a dashboard to benchmark weather APIs.

Management Trainee Engineer

June 2021 - July 2023

NetSol Technologies

- Developed an R-based smart reporting solution, reducing manual data entry by 90% and processing time from 5 hours to 5 minutes daily.
- Created real-time dashboards in Django and Python, providing leadership with visibility into over 10 KPIs, and developed a scalable data pipeline using ELK to reduce latency by 90%.

Software Engineer Intern

June 2019 - July 2019

Techlogix

- Development new modules of a Student Information website (Campus on Cloud) built on the Microsoft Azure cloud platform.
- Migration of existing ones from AngularJS to Angular.

TEACHING EXPERIENCE

Teaching Assistant

Sept 2024 - Dec 2024

Univeristy of Galway

Galway, Ireland

- CT5105 Tools and Techniques for Large Scale Data Analytics

Teaching Assistant

Feb 2020 - May 2021

National University of Computer and Emerging Sciences

Lahore, Pakistan

- CL 203: Database Systems Lab
- CL 203: Digital Logic Design

LANGUAGE SKILLS

IELTS Score: 8 (taken in April 2023) — Test Report Form Number: 23PK001657ABAA011A

ACHIEVEMENTS

Project shortlisted for the Best AI Project Award at ITAG 2025

Selected as High Potential Employee at NetSol Technologies

Dean's Honor List, (Spring-2018, Fall-2018, Fall-2019, Fall-2020)

SKILLS

Research: Machine Learning Methods, Deep Learning, Computer Vision, Natural Language Processing, Big Data Analysis, Data Visualization, Data Mining

Programming Languages: Python, R, C/C++, JavaScript

Software & Tools & Libraries: Visual Studio, RStudio, Google Web Analytics, PowerBI, Selenium, Linux, Jupyter notebooks, LATEX, Scikit-learn, OpenCV, NLTK, Jira, TestComplete, Git, Linux, Robotic Process Automation, TensorFlow, Keras, Numpy, Pandas, etc.