

Mayesha Bintha Mizan

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[LinkedIn](#)

[GitHub](#)

EDUCATION

- **Ph.D. in Computer Science (2024-Present) – GPA: 4.00/4.00**
University of Georgia, USA
- **B.Sc. in Information and Communication Engineering**
Bangladesh University of Professionals, Dhaka, Bangladesh

RESEARCH INTEREST

- **AI, ML, NLP, Computer Vision, LLM Agents etc.**

ACADEMIC PROJECTS

- **3D Reconstruction of Underwater Coral Images**
Implemented a deep learning-based 3D reconstruction pipeline for underwater coral imagery. Processed challenging real-world visual data to reconstruct spatial structure and geometry, strengthening experience in representation learning and applied computer vision.
- **Deep Learning for Image Reconstruction from fMRI Signals**
Developed a deep latent-space model to reconstruct natural images directly from high-dimensional fMRI brain activity. Designed residual encoders and U-Net-based refinement modules to map neural signals into Stable Diffusion latent space, achieving improved reconstruction quality over baseline models.
- **Security Testing of LLM Agents: Prompt Injection Vulnerabilities**
Conducted systematic security evaluation of tool-using LLM agents through red-teaming and prompt-injection testing. Built an automated evaluation pipeline to analyze unsafe tool execution, attack success patterns, and agent vulnerabilities under adversarial prompting.
- **ASD Detection Using Eye-Tracking Data**
Developed a deep learning model using CNNs to detect Autism Spectrum Disorder (ASD) from eye scanpath images. Integrated SHAP-based explainability to visualize attention maps and interpret model decisions. Achieved high classification accuracy and robustness on a multi-class eye-tracking dataset.
- **Hospital Management System** (Java, MySQL)
- **E-Ticket Reservation System** (Java)
- **Library Management System** (Python)
- **BUP CF Website** (PHP, CSS, JS, Bootstrap) (<https://github.com/methelfaiyaz/bupcf.git>)
- **Personal Portfolio** (HTML, CSS, and Bootstrap) (<https://github.com/mayesha80/portfolio.git>)

THESIS

- **Dimensionality Reduction in Handwritten Digit Recognition**
https://link.springer.com/chapter/10.1007/978-981-99-1916-1_3

Supervisor: Muhammad Arifur Rahman
Senior Lecturer, Nottingham Trent University, UK

TOOLS AND SKILLS

- **Languages:** C++, Java, JavaScript, Python
- **Databases:** MySQL, Oracle
- **Version Control System:** Git

PARTICIPATIONS

- **NASA International Space Apps Challenge** (2021)
- **AUST MindSparks'19** | Engineering Olympiad
- **IUT Mecceleration** (2019) | Poster Presentation
- **National Girls Programming Contest** (2019) | Position-151
- **MIST Robolution** (2018) | Line Follower Robot

AWARDS

- **BUP Scholarship** for an excellent result for a particular semester (2019,2020)
- **Higher School Certificate Scholarship** (2017)
- **Junior School Certificate Scholarship** (2013)

EXTRA-CURRICULAR ACTIVITIES

- **Treasurer** | Augusta University Bangladeshi Student Association (2024)
- **General Secretary** | BUP Infotech Club (2018 - 2021)
- **Event Co-Ordinator** | BUP Techsergence (2019)
- **Event Manager** | IEEE BUP Branch Fest (2018)

WORK EXPERIENCE

- **Graduate Teaching Assistant** | University of Georgia (Aug 2024- Present)
- **Graduate Research Assistant** | Augusta University (Aug 2023- July 2024)
- **Officer** | Al Arafah Islami Bank Ltd. (Aug 2022 — July 2023)
- **Industrial Training** | Bangladesh Telecommunications Company Limited (2021)