



Neelima Monjusha Preeti

Dhaka, Bangladesh

My website link: <https://monjushapreeti.github.io/portfolio/>

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RESEARCH INTERESTS

Computer Vision, Pattern Recognition, Artificial Intelligence, Image Processing, Network Medicine.

EDUCATION

Jahangirnagar University, Dhaka, Bangladesh

February 2018 — July 2023

Bachelor of Science in CSE

CGPA: 3.76/4.00

Thesis Title: Handover Detection over WAN using Fuzzy Inference System.

JOB EXPERIENCE

ERA Infotech Ltd

Dhaka, Bangladesh

Associate Software Engineer(AI)

March 2024 — October 2024

- Entrusted with the Research and Development for AI features for the country's top private and public banks.
- Train OCR for extracting Local and international text from different national documents.
- Suggesting and implementing AI features for Fintech-based projects.
- Making Glass Detection System for Facial Recognition Attendance System.
- Custom Signature Card Detection model for government and private banks.
- Core developer for implementing an EKYC (Electronic Know Your Customer) app for a reputed bank.

PUBLICATIONS

- [C.1] Emrul Hasan, Chen Ding, Sajib Saha, **Neelima Monjusha Preeti** and Abdul Halim. (Accepted) Accommodation Review Ranking for Tourism Recommendation, Workshop on Recommenders in Tourism (RecTour 2024), October 18th, 2024, co-located with the 18th ACM Conference on Recommender Systems, Bari, Italy.
- [C.2] **Neelima Monjusha Preeti**, Dr. Md. Imdadul Islam (2024). Detection of Brain Tumor from MRI Image under Deep learning and Bag of Features Algorithm [Master's Thesis]
- [J.1] **Neelima Monjusha Preeti**, Faiza Feroz, Dr. Md. Imdadul Islam (2023). Handover Detection of WAN using FIS. Jahangirnagar University Journal of Electronics and Computer Science. [under review]
- [J.2] **Neelima Monjusha Preeti**, Sushmoy Barua, Anup Majumdar (2024). Feature Ranking for Polycystic Ovary Syndrome (PCOS) Detection using XAI from Ultrasound Images [In Preparation]

PROJECTS

Sign Language Interpreter

March 2022

Domain: Computer Vision, Software Engineering Tools: Python



- Developed real-time sign-to-text conversion feature with custom-made dataset and object detection.
- Captured real-time pictures for tailoring the dataset, built sign dictionary.
- Followed SDLC rigorously, drafted SRS, integrated Continuous Integration (CI).

Fake News Detection (NSDC - HerWILL Data Science Contest)

December 2023

Domain: Natural Language Processing, Machine Learning



- It leverages NLP and ML skills - how to represent text in a machine-understandable format to classify it and extract whether news is fake or real. The project was developed using the Multinomial Naive Bayes Model and SVM.

Image Classification

February 2024

Domain: Image Processing, Computer Vision, Deep Learning



- Developed an app space leveraging Convolutional Neural Network that will classify between dog, cat and panda.

AWARDS

National Science and Technology (NST) Fellowship

April 2024

Ministry of Science and Technology (MoST)

- Ranked in the top 100 among submitted master's thesis proposals across Bangladesh.
- Was granted \$500 for my thesis on ***Detection of Brain Tumor from MRI Image under Deep learning and Bag of Features Algorithm***
- Awarded for demonstrating excellence in scientific research and innovation during the MS program.

Deans Scholarship for Academic Excellence

2018 - 2023

Department of Computer Science and Engineering, Jahangirnagar University

Nationwide Red and White Innovation Olympiad 1.0

January 2021

Organized by Red and White

- A case study was provided regarding medical service issue and patient and doctor data security.
- poster title - Designed EHR System with Machine Learning for Data Security and Eradication of Health Myths.

1st International Poster Competition on Achieving SDGs in Developing Countries

March 2021

Gold Award, Organized by Univ

- Awarded for presenting solution on achieving sustainable development goals in developing countries.
- Poster title - Building Rich Community DHR System and using ML for Decision Making ensuring Enriched Health Facility and eradicating Health Myths.

HerWILL: AI for Equality Datathon 2024

October 2024

3rd, Organized by HerWILL, in collaboration with AI4OPT at Georgia Tech

- The overall objective of this competition was to accurately and efficiently classify gender bias in text.
- Trained my model with GRU(Gated Recurrent Unit) and custom preprocessing for classification of gender bias and placed 3rd among participants from 5 countries.

SKILLS

- **Programming:** Python, C++, C, SQL.
- **Frameworks:** TensorFlow, Keras, Pytorch, Scikit-Learn.
- **Web Technologies:** HTML, CSS, JavaScript, Node.js, .NET, Express.js, React, TypeScript.
- **Database Systems:**MySQL, PostgreSQL, Oracle.
- **Implementation Methodologies** NumPy, Pandas, Matplotlib, Bert, Image Processing, Data cleaning, visualization, and wrangling, EDA.

OTHER EXPERIENCES

- Tutor for underprivileged kids under the organization "TORI".
- Designer at Voice of Code Design Team - a global platform of tech write-ups for the promotion of technical blogging managed by Microsoft Learn Student Ambassadors (**2020-2022**).
- Volunteered for different fundraising campaigns on campus, for winter clothing, and medical treatment costs for insolvent families.
- Volunteered for on campus Blood donation organization "BADHON" which is centrally connected to the whole country for managing blood through vast network(**2018-2024**).
- Volunteered as a scribe for Ada Lovelace Celebration and Girls Innovation Bootcamp 2 organized by Bangladesh Open Source Network (BdOSN)(**2019-2020**).