Arnob Majumder

Chattogram, Bangladesh arnobmajumder00@gmail.com +8801985-660378 Linkedin Github
majumderarnob.github.io

Career Objective

A recent graduate in computer science with a solid academic foundation and practical experience in AI, ML, and Quantum Computing. Passionate about applying ML techniques to solve real-world problems, with hands-on experience in projects involving Computer Vision, NLP, and Predictive modeling. I'm seeking a research-oriented master's degree to deepen the theoretical foundations, develop advanced research skills, and contribute to innovative work in the diverse field of machine learning and emerging computational paradigms.

Research Interest

Machine Learning, Computer Vision, Optimization, Quantum Computing

Education

B.Sc in Computer Science *July 2020 – October 2024*
BRAC University, Dhaka, Bangladesh ***CGPA: 3.28/4.0***
Relevant coursework: Quantum Computing, Artificial Intelligence, Machine Learning, Image Processing, Natural Language Processing, Blockchain & Cryptocurrencies, Computer Security, Randomized Algorithm, Linear Algebra.

Technical Skills

Programming Languages: C, Python, Javascript
Quantum Computing Libraries: Qiskit, Penny-Lane
Data Analysis & Visualization Tools: NumPy, Pandas, Matplotlib
Database: MySQL
ML Libraries & Framework: TensorFlow, Keras, Scikit-learn, PyTorch
Tools & Technologies: Git, Github, LaTeX

Soft Skills

Evidence-Based Decision Making, Adaptability to New Technologies, Ability to Work Under Deadlines, Cross-Cultural Collaboration, and Initiative and Ownership.

Experience

Web Design & Development Trainee *July 2020 – September 2020*
ICT division, Dhaka, Bangladesh

Projects

- **Explainable Detection of Online Sexism** (Code) (Report)
  - TASK A is Binary Sexism Detection: a two-class (or binary) classification where systems have to predict whether a post is sexist or not.
  - TASK B is Category of Sexism: for sexist posts, a four-class classification where systems have to predict one of four categories: (1) threats, (2) derogation, (3) animosity, (4) prejudiced discussions.
- **Signboard Detection Using Deep Learning Based Computer Vision Algorithms** (Code)
  - Evaluated the accuracy of the YOLO V8 algorithm for detecting signboards in Dhaka city, analyzing performance using metrics such as Precision, Recall, and mAP across three sets.
- **Real-Time Traffic Collision Avoiding Game Using Reinforcement Learning** (Code)
  - The goal is to automate playing games using a trained reinforcement learning model to make judgments and automatically recognize and extract game elements in real-time.
  - The game is made using OpenGL. OpenAI Gym is used to build the environment. Proximal Policy Optimization(PPO) is used for training as it performs better than the state-of-art approach.
- **Diabetes Prediction using Machine Learning** (Code) (Report)
  - Developed a prediction model utilizing K-Nearest Neighbors, Random Forest, and Naive Bayes Classifier.

- **Animating the Lunar Position with Pygame** (Code)
  - Some computer graphics algorithms, like the DDA algorithm, midpoint line, and midpoint circle drawing algorithm, are used here.

Research (Google Scholar)

- **Audio Classification Using Quantum Techniques.** *Manuscript under preparation*
  - scrutinized the efficiency of hybrid QCNN on audio classification tasks in its NISQ era.

Certifications

- **IBM Qiskit Global Summer School 2025** (Link)
- **Summer School on Quantum Computing 2025 at UZH** (Link)
- **Solstice of Foundation 2025: Summer School on Quantum Foundation** (Link)
- **IBM Qiskit Global Summer School 2024** (Link)
- **IBM Qiskit Global Summer School 2023** (Link)
- **QML Summer School 2023 by Kyiv Academic University** (Link)
- **Qubit by Qubit's Introduction to Quantum Computing** (Link)

Awards & Achievement

- **Quantum Excellence Badge, IBM Quantum** *2025, 2024, 2023*
  Awarded for achieving 100% in all lab tasks during Qiskit Global Summer School
- **Deans's List Award, BRAC University** *Fall'2020, Spring'2021*
  Received academic recognition for consistent excellence over two consecutive semesters

Extracurricular Activity

- Qiskit Advocate at IBM Quantum *Sep 2025 - Present*
- Junior Executive at BRAC University Chess Club *Mar 2022 - Dec 2023*
- Campus Ambassador at English Olympiad, Bangladesh *Jan 2018 - Aug 2019*

Reference

- **Shadman Shahriar**
  Lecturer, Department of Computer Science and Engineering, BRAC University
- **Arup Mazumder**
  Doctoral Researcher, University of Rhode Island, USA