Khondokar Radwanur Rahman

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About Me

Passionate AI researcher with experience in Computer Vision, NLP, Transformers, and Multimodality. Proven problem-solving skills through Kaggle competitions and competitive programming. Research Assistant at Qatar University, contributing to cutting-edge AI projects. Strong interest in developing intelligent systems that understand and interact with humans.

Education

Rajshahi University of Engineering and Technology — March 2022 – April 2026

- Bachelor of Science (B.Sc.) in Electrical and Computer Engineering (ECE).
- CGPA: 3.23/4.00
- **Coursework:** Computer Architecture, Data Structure and Algorithms, Database, Operating System, Microprocessor and Assembly Language.

Dhaka City College — 2017 – 2019

- Group: Science
- GPA: 5.00/5.00

Experience

Research Assistant, Qatar University – Doha, Qatar — February 2025 – Present

- Writing book chapters on Machine Learning, and building Machine Learning systems.
- Working on the fields of: Computer Vision, Natural Language Processing, Multimodality, and Environmental Science.
- Focusing on publishing Q1 Journals.

ML Engineer, Tech Autocrats – Dhaka, Bangladesh — May 2025 – Present

- Developing an object detection system for the Autonomous Underwater Vehicle (AUV) competing in the RoboSub'25 competition, to be held in Irvine, California, USA.
- Developing the Image Processing pipeline and path planning to efficiently detect the objects under water.
- Implementing bidirectional communication between the Jetson Orin Nano and Pixhawk using the MAVLink protocol to enable autonomous decision-making and control.

AI Trainer, OutlierAI – Remote, USA — Nov 2024 – Jan 2025

- Trained the AI Models on Mathematical Problems.
- Projects worked on: Green Wizards, Kepler RLHF.

Publications

ReliefNet: A Novel and Reliable AI-Based Multimodal Framework for Real-Time Disaster Severity Classification in Humanitarian Operations. [Pending Approval]

- Journal: Information Fusion.

Projects

AgroVision | Smart Diagnosis for Plant Diseases — GitHub Repo

Designed and implemented a complete MLOps pipeline for plant disease classification using TensorFlow. Integrated DagsHub, MLflow, and DVC for experiment tracking and pipeline versioning. Developed a CI/CD pipeline with AWS and GitHub Actions for seamless deployment. Built a Flask-based web app with HTML/CSS for real-time predictions. Followed modular coding and OOP principles to ensure scalability and maintainability. Leveraged Docker for containerization and cloud deployment for production readiness.

Technologies

Languages: Python, C/C+.
Machine Learning Frameworks: TensorFlow, PyTorch, Scikit-Learn.
Backend: FastAPI, Python Flask, Django.
Version Control: Git, GitHub.

Achievements

5th KIBO Robot Programming Challenge, Rajshahi, Bangladesh [Link]   June 2024

- The KIBO Robot Programming Challenge (Kibo-RPC) tasks participants with programming free-flying robots, like Astrobee, aboard the ISS to autonomously navigate, avoid obstacles, identify targets, and perform actions such as activating switches or aligning with objects.
- Our Team n0Brains secured 7th position among 135 teams in Bangladesh in the National Round.

University Innovation Hub Program (UIHP), Rajshahi, Bangladesh[Link]   May 2024

- UIHP (University Innovation Hub Program) is a Bangladesh Hi-Tech Park Authority initiative, funded by the World Bank, empowering students and alumni nationwide to develop innovative business ideas with mentorship and funding.
- Our team **MosQuitt** secured 2nd position and pre-seed funding for start-up.

Smart Rajshahi Innovation Challange, Rajshahi, Bangladesh[Link]   October 2023

- Our team **Best_Trio** secured 3rd position for innovative idea and prototype showcasing.

Competitive Programming, Codeforces[Handle]   October 2023

- Max Rating: Pupil (1216)