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, Group: Science

2017 - 2019

• 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.

Software Engineer, Tech Autocrats – Dhaka, Bangladesh

May 2025 - Present

- Developing an object detection system for the Autonomous Underwater Vehicle (AUV) competing in the Robo-Sub'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

Smart Rajshahi Innovation Challange, Rajshahi, Bangladesh[Link]

October 2023

• Our team **Best Trio** secured 3rd position for innovative idea and prototype showcasing.

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.

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 noBrains secured 7th position among 135 teams in Bangladesh in the National Round.