

Farhana Rahman

farhanajpj@gmail.com | +8801789791755 | Dhaka, Bangladesh

linkedin.com/in/florafloriate | github.com/florafloriate | Problem Solving Profile

Experience

Samsung R&D Institute Bangladesh July 2025 – Jan 2026

Research Intern

- **Machine learning** and **Deep learning** techniques are applied in computational photography to enhance camera intelligence and optimize feature performance. The work focuses on **image processing optimization**, **AI-driven image enhancement**, and real-time performance profiling, with deployment of optimized models on **mobile platforms** using **Android development** (both **Java** and **Kotlin**) to improve efficiency and user experience.

Programming Contest Judge Mar 2023

- CodeSmash Intra RUET Programming Contest 2021 [Authored Problem: How Far have You been?]

Education

Rajshahi University of Engineering & Technology Jan 2020 - June 2025

B.Sc in Computer Science & Engineering

Current CGPA: 3.65 (out of 4.00)

Programming Competitions & Achievements

- Ada Lovelace National Girls' Programming Contest 2022 6th
- National Girls' Programming Contest 2021 12th
- National Girls' Programming Contest 2023 17th
- Ada Lovelace National Girls' Programming Contest 2021 21st
- HackAtom by Moscow Engineering Physics Institute (MEMPhI) & Information Center on Nuclear Energy 2022 Champion
- Fundamental IT Engineer Examination (FE Level-2) 2024 10th
- Huawei Seeds for the Future 2024 Top 20
- AIUB presents Notre Dame Annual Science Festival 2018 & 28th GKC (Math Olympiad) 2nd Runner Up

Technical Skills

- **Programming Languages:** C, C++, Python, Java, Kotlin, HTML, CSS, Javascript
- **Database:** MySQL
- **Research Domains:** Machine Learning, Deep Learning, Natural Language Processing, Cyber Security
- Proficient knowledge in **Algorithms, Data Structures & Number Theory**
- Solved **over 1000** algorithmic problems in C, C++; Codeforces - **Specialist** (Max Rating: **1462**)

Projects

Pixel Study Room - Pixel-Themed Virtual Study Space - [Link](#) | Next.js, React, Tailwind CSS

- Developed a **pixel-style virtual study room web application** with multiple productivity enhancing features, leveraging reusable **React component architecture** and **Tailwind CSS** for scalable UI development.

Research & Publication

Conference Paper | Computer Vision | Deep Learning | Multimodal AI NCIM 2025

A Lightweight Framework for Facial Emotion Recognition: Leveraging Geometrical Priors with Spatial Features

- Developed a multimodal deep learning model for facial expression recognition, improving accuracy on challenging emotions like anger vs. disgust with up to 94% accuracy across datasets

Conference Paper | Machine Learning | Natural Language Processing BIM 2023

Gender Abusive Language Detection In Bengali Using Machine Learning Algorithms

- Developed a machine learning-based system to detect gender-based abusive language in Bengali social media, achieving 84.5% recall with Support Vector Machine

Undergraduate Thesis | Machine Learning | Cyber Security

Integration of Explainable AI with Lightweight Machine Learning Approach for IoT Botnet Detection

- Developed an explainable AI-driven lightweight ML model for IoT botnet detection, achieving 89% accuracy with real-time edge deployability using SHAP interpretability