

Ferdous Zeaul Islam

Sr. Software Engineer

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SUMMARY

- Software Engineer with 3+ years of experience developing and managing software solutions for a startup software firm under DBL Group, serving clients across Bangladesh, India and the USA. Leading and mentoring a team of 16 engineers in the development and maintenance of company's flagship software- Tafuri HRMS.
- Graduated with Summa Cum Laude honors, first author of two conference published papers, served as undergraduate teaching assistant under 4 different faculty members and a rated member at NSU Problem Solvers Club with 700+ solved across Codeforces, UVA, LightOJ and LeetCode.

TECHNICAL EXPERTISE

- **Languages:** Java, Python, C++
- **Framework & Tools:** Spring Boot, Android Studio, Flask, Sklearn, PyTorch, PostgreSQL, MySQL

EDUCATION

- **Bachelor of Science in Computer Science and Engineering** Jan 2022
North South University Dhaka, Bangladesh
Summa Cum Laude, CGPA: 3.94/4.00

PROFESSIONAL EXPERIENCE

- **Sr. Software Engineer** Jan 2025 - Present
Neural Semiconductor Limited Dhaka, Bangladesh
 - Leading the current team of 16 backend, frontend and design engineers for the development and maintenance of company's in-house flagship software- Tafuri HRMS.
 - Developed AI agents into the Tafuri HRMS system to enable users to automate workflows.
 - Developed RAG based AI agent for a production grade automated resume sorter service.
- **Software Engineer III** Jan 2024 - Dec 2024
Neural Semiconductor Limited Dhaka, Bangladesh
 - Led a team of 12 engineers, designed database architecture and developed backend features for marketing expense tracking software for DBL Group, 5th largest RMG manufacturer in Bangladesh, within 8 weeks.
 - Manage, distribute and collaborate with the software team for the development of all 3 core modules (Attendance, Leave and Payroll) of company's in-house flagship software- Tafuri HRMS.
 - Mentored a team of 8 interns and trainees joining in the backend team.
- **Software Engineer II** Jan 2023 – Dec 2023
Neural Semiconductor Limited Dhaka, Bangladesh
 - Database design, backend development and writing tests for 10+ features of company's in-house flagship software- Tafuri HRMS.
 - Developed backend features and built the Progressive Web App (PWA) version of the website of a sales tracking software for DBL Ceramics, a leading ceramic company in Bangladesh.
- **Software Engineer I** Feb 2022 – Dec 2022
Neural Semiconductor Limited Dhaka, Bangladesh
 - Developed 5+ backend features including the premium tier feature of dynamic report generation of company's in-house flagship software- Tafuri HRMS.
 - Setup automation testing environment for web apps using Selenium.
- **Undergraduate Teaching Assistant** Jun 2021 – Sept 2021
North South University, Department of Electrical & Computer Engineering Dhaka, Bangladesh
 - Assisted 4 faculty members with course work, evaluated assignments and held student consultation hours.

RESEARCH & PUBLICATIONS

- **Evaluation of Machine Learning Methods for Android Malware Detection using Static Features**

Description: Detect whether an Android app is a malware using static features and machine learning classifiers- Decision Tree, K-Nearest Neighbours, Linear SVM and Random Forest.

Publisher: IEEE

DOI: 10.1109/IICAIET51634.2021.9573549

- **Evaluation of Machine Learning Methods for Predicting Rainfall in Bangladesh**

Description: Analyze performance of machine learning algorithms- Decision Tree, K-Nearest Neighbours, Random Forest, Extreme Gradient Boosting, Light Gradient Boosting and Multi-Layered Perceptron in predicting daily rainfall as both regression and classification. Additionally experiment with Zero Inflated Regression to address the excessive amount of zero rainfall values in the dataset.

Publisher: IEEE

DOI: 10.1109/CITDS54976.2022.9914171

NOTABLE PROJECTS

- **AR Schoolbook, Augmented Reality App**

Description: An augmented reality android app for figures and experiments in the NCTB mandated Bengali medium class-7 science book. Built using Android Studio (Kotlin), ARCore Android SDK, Firebase Real-time database, and YouTube API. A user study with around 30 participants was conducted in designing the application which consisted of face-to-face interviews and online survey with students and home tutors. Interviews were analyzed using Atlas.ti web.

Github Link: <https://github.com/NSU-SP21-CSE499-18/Group-01>

- **Help Me, Android App and Web Platform**

Description: A real-time emergency help seeking platform consisting of an android app and a supplementary web app. Implemented using Android Studio (Java), Firebase (Phone Authentication & Realtime Database), Fused Location API, Google Maps SDK, Barikoi Android Library. The required features and UI/UX design were inspired from face-to-face interviews with 6 participants and online survey. Interviews were analyzed using Atlas.ti web.

Github Link: <https://github.com/ferdouszislam/Help-Me-App-v497>

- **Bangla Handwriting Aesthetics Prediction with Deep Learning**

Description: Aesthetic score prediction of Bangla handwritten characters collected from the Bangla-Lekha-Isolated dataset using a custom CNN architecture and transfer learning. Implemented using Pytorch and libraries: pandas, numpy, matplotlib etc.

Github Link: <https://github.com/ferdouszislam/Bangla-Handwritting-Aesthetics-Prediction-ML>