Mostafizur Rahman Fahim

Graduated B.Sc. in Computer Science & Engineering AUST (2025)

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GitHub | LinkedIn | Portfolio Website

Summary

Computer Science and Engineering graduate with a strong academic foundation and hands-on experience in software development, machine learning, blockchain, IoT, and cloud computing. Passionate about building scalable systems, developing innovative applications, and conducting applied research. Skilled in both industry-focused projects (web/mobile apps, cloud, IoT) and academic research (ML, soft computing, data mining).

Education

Ahsanullah University of Science and Technology (AUST) Dhaka, Bangladesh
Bachelor of Science in Computer Science and Engineering *Dec 2021 – Dec 2025*
CGPA: 3.10/4.00

BAF Shaheen College Dhaka, Bangladesh
Higher Secondary Certificate (HSC), Science *2018 – 2020*
GPA: 5.00/5.00

Rani Bilashmony Govt. Boys' High School Gazipur, Bangladesh
Secondary School Certificate (SSC), Science *2016 – 2018*
GPA: 5.00/5.00 (Scholarship)
Junior School Certificate (JSC) *2016*
GPA: 5.00/5.00 (Scholarship)

Technical Skills

Programming Languages
C C++ Java Python C# JavaScript PHP SQL HTML/CSS Solidity Prolog 8086 Assembly

Databases
MySQL MS SQL Server PostgreSQL SQLite MongoDB Firebase Realtime DB phpMyAdmin SSMS

Web & Software Development
React.js Node.js Express.js ASP.NET Android (Java) REST APIs Three.js PHP + MySQL

Cloud & DevOps
AWS (EC2, S3, IAM) Linux/Ubuntu VirtualBox Docker CI/CD Shell Scripting

AI/ML & Data Science
scikit-learn TensorFlow PyTorch Pandas NumPy Matplotlib Seaborn WEKA Google Colab

IoT & Embedded Systems
ESP32 Raspberry Pi Arduino MQTT ThingSpeak Sensors (ECG, SpO2, Temp/Hum) Proteus Tinkercad

Blockchain & Web3
Ethereum Smart Contracts Geth Hyperledger Fabric IPFS Web3.js Cosmos SDK

Tools & Platforms
Git & GitHub VS Code Visual Studio Android Studio MATLAB Postman Cisco Packet Tracer LaTeX MS Office

Selected Coursework

- **Algorithms & Data Structures:** Data Structures, Algorithms, Numerical Methods, Discrete Mathematics
- **Software Development:** OOP (Java), Software Engineering, Web Technologies, Android Development
- **Systems & Architecture:** Computer Architecture, Digital Logic Design, Digital System Design, OS, Microprocessors & Microcontrollers
- **Artificial Intelligence & Machine Learning:** Pattern Recognition & ML, Soft Computing, Data Mining, AI Lab
- **Networks & Cloud:** Computer Networks, Data Communication, Cloud Computing (AWS EC2/S3)
- **Databases:** Database Systems, SQL Programming, MS SQL Server, phpMyAdmin
- **Compilers & Theory:** Formal Languages & Compilers, Automata Theory
- **IoT & Embedded Systems:** ESP32, Raspberry Pi, Embedded C
- **Computer Graphics:** 3D rendering, shaders, Three.js visualization

Projects

NexTrip: Hybrid Blockchain Ride-Sharing Platform *Thesis Project*
 Web App | Mobile App

- Developed a full-stack decentralized ride-sharing system using **React.js** and a **hybrid blockchain architecture**.
- Designed on-chain logic with **Ethereum smart contracts** and off-chain private operations using **Hyperledger Fabric**.
- Built a cross-platform mobile application using **React Native (Expo)**.
- Implemented wallet integration, secure authentication, and optimized gas usage for contract calls.

Cloud Restaurant: Full-Stack ASP.NET Application
 Repository

- Developed a restaurant management system using **ASP.NET, C#**, and **MS SQL Server**.
- Created modules for menu, orders, customers, and admin with full CRUD support.
- Designed a responsive UI using Razor pages and ensured efficient backenddatabase integration.

Hospital Management Systems (Java & PHP)
 Java Desktop | PHP Web

- Developed two hospital management systems for patient records, appointments, billing, and staff management.
- **Java Version:** Implemented OOP-based GUI with **MySQL**.
- **PHP Version:** Built a web system using **PHP, HTML/CSS**, and **MySQL**.

IoT & Embedded Systems Projects
 Automated Toll System | IoT Health Monitor

- Designed an **automated toll system** with RFID, Arduino Uno, and servomotors.

- Built a **real-time health monitoring system** (ECG, SpO$_2$, Temp, Humidity) using ESP32 and Raspberry Pi.
- Integrated Firebase and ThingSpeak dashboards for remote IoT analytics.

Exam Enrollment System Android

 [Repository](#)

- Developed a native Android app using **Java** to manage course selection and exam enrollment.

3D Building & Playground Computer Graphics

 [Repository](#)

- Created a 3D scene using **Three.js** including buildings and playground structures.
- Implemented custom **vertex/fragment shaders**.

Zombie Attack 2D Game

 [Repository](#)

- Built a 2D survival game using **C** and **igraphics.h**.

Publications

Design and Development of a Privacy-Preserving Semi-Public Blockchain-Based Ride-Sharing System Using RAFT Consensus and IPFS Storage
2nd Author | *International Journal of Advanced Information Technology (IJAIT)*

 [ResearchGate Link](#)

- Proposed a hybrid blockchain architecture integrating **RAFT consensus** and **IPFS-based secure storage**.
- Addressed challenges of gas fees, privacy, and decentralized data sharing.

A Privacy-Preserving Semi-Public Blockchain Ride-Sharing Platform with IPFS Storage
2nd Author | *2025 IEEE QPAIN*

 [IEEE Link](#) | [Certificate](#)

- Presented NexTrips architecture focusing on smart contract ride matching and secure settlement.

From Data to Diagnosis: ML for Monkeypox Prediction and Surveillance
2nd Author | *2025 IEEE QPAIN*

 [IEEE Link](#) | [Certificate](#)

- Evaluated ML models (CNN, SVM, DT) for clinical Monkeypox prediction.

Predicting Agricultural Land Suitability Using Deep Learning
2nd Author | *BIM 2025 Conference*
Link and certificate forthcoming

- Designed a DL-based model combining soil, climate, and geospatial data for precision agriculture.

Experience

Peer Tutor & Academic Assistant *2021–2025*
AUST, Dept. of CSE

- Tutored students in **Data Structures, Algorithms, and Java**.
- Assisted students with debugging and conceptual understanding.

IT Support Volunteer *2022–2023*
AUST Computer Club

- Provided tech support during events and workshops.
- Configured computers, networking devices, and AV systems.

Freelance Web Developer & Networking Technician *2023–Present*

- Developed custom **PHP web applications** for small businesses.
- Designed network topologies using **Cisco Packet Tracer**.

Certifications & Training

Web Development Bootcamp *2025*
FreeCodeCamp & Scrimba

Advanced Graphics Design *2016*
Universe Computer Training Centre

Office Productivity Suite *2014*
Universe Computer Training Centre

AWS Cloud Foundations (Training) *2024*
Amazon Web Services

Cisco Networking Essentials (Training) *2023*
Cisco Networking Academy

MATLAB Onramp *2024*
MathWorks

Activities

- Active member of the **AUST Computer Club**; participated in workshops and tech seminars.
- Volunteered in university tech events and competitions.
- Regular participant in inter-department football tournaments.
- Contributed to open-source projects on GitHub.

Additional Information

Languages: Bangla (Native), English (Professional)
Interests: Open-source, hackathons, robotics, football, cricket
References: Available upon request