

Mohammed Mahbub Alam

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Summary

Electronics and Telecommunication Engineering undergraduate with strong foundations in digital systems, embedded programming, and software development. Hands-on experience in microprocessor-based system design, RF and antenna simulation, and responsive web development. Seeking internships in software engineering, embedded systems, or digital circuit design to apply analytical and problem-solving skills in real-world projects.

Education

Chittagong University of Engineering and Technology (CUET)

Jan 2023 – Present

B.Sc. in Electronics and Telecommunication Engineering

CGPA: 3.33/4.00

Relevant Coursework: Data Structures, Digital Logic Design, Microprocessors, Circuit Theory, Signals and Systems

Government Hazi Muhammad Mohsin College

Jul 2019 – Nov 2021

Higher Secondary Certificate (Science)

GPA: 5.00/5.00

General Scholarship Recipient

Technical Skills

Programming: C++, Python, JavaScript, Assembly (8086)

Web Development: HTML, CSS, Responsive Design, Frontend Development

Tools and Software: Git, GitHub, MATLAB, Proteus, NI Multisim, ADS(Advance system design), L^AT_EX

Core Concepts: Data Structures and Algorithms, Object-Oriented Programming, Digital Logic Design, Embedded Systems, Circuit Simulation

Areas of Interest: Embedded Systems, RF and Microwave Engineering, Software Development

Projects

Personal Portfolio Website

HTML, CSS, JavaScript, GitHub Pages

- Designed and developed a responsive portfolio website showcasing technical projects and skills.
- Implemented interactive UI components, smooth navigation, and performance optimization.
- Deployed using GitHub Pages with version control and continuous updates.

Microprocessor-Based Vending Machine

8086, Assembly, Proteus

- Developed an automated vending machine system using microprocessor interfacing and embedded control.
- Programmed coin detection, product selection, and dispensing logic in assembly language.
- Simulated and validated functionality and timing reliability in Proteus.

Microwave and Antenna Design

RF Engineering, CST/HFSS

- Designed microwave antennas for wireless communication and analyzed radiation characteristics.
- Evaluated key parameters including gain, bandwidth, return loss, and impedance matching.
- Optimized antenna performance using electromagnetic simulation techniques.

Digital Logic Design Project

Logic Gates, Boolean Algebra

- Designed combinational and sequential circuits and optimized logic using Karnaugh maps.
- Simulated and verified digital system performance using circuit design tools.

Logic IC-Based Security System

CD4043, 7410, 7404

- Built a password-protected security system using CMOS and TTL logic ICs.
- Integrated sensor-based intrusion detection and alarm triggering mechanisms.

Certifications

- Assistant Data Scientist (Ongoing, Expected 2026)

- MATLAB Onramp – MathWorks (Completed 2024)

Achievements

- General Scholarship in Higher Secondary Certificate Examination

Languages and Interests

Languages: Bengali (Native), English (Intermediate), Hindi (Fluent)

Interests: Competitive programming, Embedded systems, Electronics prototyping, Technology blogs