

# Tahmidul Islam Omi

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Dhaka, Bangladesh



Tahmidul IslamOmi



Tahmidul-Islam-Omi



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## EDUCATION

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### Bangladesh University of Engineering & Technology

Nov 2022 - Present

B.Sc. in Computer Science & Engineering

### Rajshahi College

July 2019 – Dec 2021

Higher Secondary Certificate (HSC)

## SKILLS

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**Languages:** Java, Python, C, C++, JavaScript, Dart, TypeScript

**Frameworks & Libraries:** React, Next.js, Node.js, Express, FastAPI, Tailwind CSS, Material UI, Bootstrap

**Databases:** Oracle, PostgreSQL, MongoDB

**AI & ML:** RAG, LangChain, Agentic AI, Pandas, NumPy, Scikit-learn, Matplotlib, PyTorch

**DevOps & Cloud:** Docker, AWS, CI/CD pipelines, GitHub Actions

**Tools & Utilities:** Git, GitHub, Prisma, Apache JMeter, Supabase, Puppeteer, Zod, Resend, Qdrant

## Problem Solving

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Solved 120+ problems on [LeetCode](#) & NeetCode covering Dynamic Programming, Graphs, Greedy, Trees, Linked Lists, Arrays, Hashing, Stacks, Queues, Shortest Path, Heaps, and BST.

## Experience

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### EdTech Startup (Software Developer)

Apr 2026 – Present

Building an AI-powered Socratic learning platform that helps students learn through interactive questioning, adaptive assessments, and personalized feedback.

### Eduytics (Software Developer Intern)

Nov 2025-Jan 2026

Contributed to the development of an AI-powered academic management platform by building and maintaining frontend features using Next.js, Tailwind CSS, and TypeScript, and backend services with Express.js, MongoDB, and TypeScript.

### SocioFi Technology (AI Intern)

Developed AI agent projects leveraging RAG, LangChain, and LLM integration to demonstrate applied AI skills.

## PROJECTS

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- **BUET CSE Assignments** | [GitHub](#)

This repository contains all my academic assignments from BUET CSE, covering topics such as OOP, DSA, Design Patterns, OS, AI, Compiler, Signals & Linear Systems.

- **C Compiler** | C++, ANTLR, Lex | [GitHub](#)

Built a basic C compiler from scratch with four stages: symbol table construction, lexical analysis, parsing (ANTLR4), and intermediate code generation with peephole optimization. Generated 8086 assembly code executable on an emulator. Supported features include type casting, scope management, control statements, loops, functions with recursion, and basic error detection.

- **DisasterLens** | React, FastAPI, MongoDB | [GitHub](#)

Developed DisasterLens, an AI-powered disaster management platform for Bangladesh with real-time disaster monitoring, volunteer coordination, emergency alerts, AI-based impact analysis, geospatial risk mapping, and bilingual support for authorities and communities.

- **EcoMealHub** | React, Express, Supabase | [GitHub](#)

Developed a full-stack web application aligned with SDG-2 & SDG-12 to help users track food inventory, monitor expirations, plan meals, and reduce waste. Implemented authentication, seeded inventory/resources, OCR-based receipt scanning, rule-based tracking, dashboards, and data insights to support responsible food consumption.

- **Weather AI Agent** | React, FastAPI, Supabase, LangChain | [GitHub](#)

Developed an AI-powered weather assistant that handles natural language queries via voice and text using LangChain, OpenWeatherMap API, and ElevenLabs. Implemented query understanding, weather data retrieval (current, historical, forecast), and voice-based responses. Integrated free LLM APIs (Gemini) for intent recognition and reasoning. Enhanced with error handling, custom prompt tuning, query history (Supabase), sentiment-aware responses, and follow-up chat support for context-aware conversations.

- **Web Analytics & Dynamic Dashboard** | React, FastAPI, Supabase, Gemini LLM | [GitHub](#)

Developed a web analytics platform enabling website owners to track user activity, session metrics, and system details, with a lead scoring system to evaluate users or sessions. Built an LLM-powered dynamic dashboard alongside a traditional static dashboard, allowing owners to query any metric and receive interactive visualizations.

- **Chain Reaction Game** | React, FastAPI | [GitHub](#)

Implemented a Chain Reaction game AI using minimax with alpha-beta pruning on a 9x6 board. Modeled game rules, moves, and explosions accurately. Developed five heuristics to improve AI decision-making. Created a two-player UI and managed game state communication via a shared file. Conducted experiments to evaluate heuristics and search depth performance.

- **Online Food Ordering** | Java Threading | Networking | JavaFX | [GitHub](#)

Developed an Online Food Ordering Project using JavaFX with threaded networking for efficient performance and real-time communication, featuring a user-friendly interface for seamless menu browsing, order placement, and delivery tracking.

## Achievements

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- Champion – National Skill Competition 2025 (Web Technologies); representing Bangladesh at WorldSkills 2026, Shanghai.
- Finalist Team at Mapathon 2026.
- Ranked in the Top 10 out of 170 teams at InnovateX Hackathon