

# Sowhardo Bin Atik

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## Profile

Computer Science undergraduate focused on backend, full-stack development, and DevOps practices. Experienced in building containerized applications and scalable APIs. Exploring integration of AI-driven workflows into full stack applications and looking forward to Industry Experience to expand my Horizon in the Technical Domain.

## Technical Skills

Languages	Python, JavaScript, TypeScript, C++, Java, C, SQL
Backend	FastAPI, Node.js, Express.js, RESTful APIs, Nginx, Redis, Socket.io
Frontend	React.js, Next.js, TailwindCSS, HTML, CSS
Databases	PostgreSQL, MongoDB, Indexing, Query Optimization, Normalization
DevOps & Tools	Docker, Docker Compose, Linux/Bash, Git, Vim, Locust (Load Testing), VM
CS Fundamentals	DSA, OOP, System Design, HTTP, OS & Computer Architecture

## Projects

### API Load Testing and Performance Optimization

- Simulated concurrent users using Locust to evaluate API performance under load.
- Integrated Nginx as a reverse proxy to improve request handling efficiency.
- Implemented Redis caching layer to reduce database load and decrease response time.
- Observed improvements in throughput and response latency after optimization.

### Multi-Agent Research Assistant (FastAPI + React + GROQ API)

- Implemented a basic multi-agent workflow using GROQ LLM API integrated with FastAPI backend.
- Designed agent interaction logic to simulate research-task delegation and response aggregation.
- Built a ReactJS frontend interface to interact with the multi-agent system.
- Structured backend for modular agent orchestration and API-based communication.

### Weather Dashboard (Backend + Frontend Integration)

- Built backend API and integrated it with a React frontend.
- Dockerized the full stack application for local deployment.
- Integrated the OpenWeatherMap API with error-handling and validation for invalid city inputs.

## Achievements

### AgentX AI Prompt Engineer Level Certification

2024

Learned LLM architecture fundamentals, zero-shot/few-shot prompting, and chain-of-thought techniques to optimize model reasoning and workflow automation.

## Education

### Bachelor of Science in Computer Science and Engineering

2022 – Expected March 2026

BRAC University, Bangladesh

CGPA: 3.69 (expected 3.7 after thesis completion)