

Mohammad Ninad Mahmud Nobo

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SUMMARY

- CSE undergraduate at BUET with full-stack software engineering experience across frontend/mobile interfaces, backend systems, and applied AI.
- Actively involved in research on LLM-based software testing, machine learning, and medical AI, with hands-on experience building end-to-end AI-driven systems and datasets.

EDUCATION

Bangladesh University of Engineering and Technology (BUET)

2022 – Present

Bachelor of Science in Computer Science and Engineering (CSE)

CGPA: 3.61 / 4.00

PROJECTS

- **MindTrace: AI-Powered Dementia Care Application**

Kotlin • Spring Boot • Spring AI • PostgreSQL • Redis • Firebase • Docker • Azure

2025

- Engineered an AI-driven mobile and backend system for dementia care, integrating Android frontend with a scalable Spring Boot backend to support real-time caregiver workflows.
- Designed accessibility-first UI/UX tailored for elderly users with cognitive impairments, focusing on usability and clarity.
- **Links:** GitHub Repository | Feature Demo | Infrastructure Demo

- **Gemma VetCare: AI-Assisted Farming Support System**

Kotlin • Android Studio • Spring Boot • Spring AI • MongoDB

2025

- Developed an AI-assisted Android application for veterinary and farming decision support.
- Implemented RESTful APIs optimized for low-connectivity environments.
- **Links:** GitHub Repository | Feature Demo

- **CSE310: Compiler Construction (Flex, Bison, 8086 Codegen)**

C++17, Flex, Bison/Yacc • Linux

2024

- Built a full compiler for a C-like language covering lexical analysis, parsing, semantic analysis, intermediate representations, and optimized 8086 assembly generation.
- **Links:** GitHub Repository

- **Computer Graphics Pipeline Implementation**

C++17 • OpenGL/GLUT • Rasterization • Ray Tracing

2025

- Implemented a full graphics pipeline including transformations, clipping, rasterization with Z-buffering, and ray tracing.
- Developed OpenGL demos with camera systems supporting 6-DOF control.
- **Links:** GitHub Repository

RESEARCH & PUBLICATIONS

- **Undergraduate Thesis: Web Testing Using Large Language Models**

LLMs • Web Automation

2025 – Present

- Designing and implementing LLM-based pipelines for automated web test generation.
- Creating and curating a dataset of functional descriptions and corresponding test cases for supervised evaluation.
- Investigating coverage improvement and robustness of generated tests.
- **Links:** GitHub Repository

- **MedCAR: Conflict-Aware Medical Reasoning System**

Python • Deep Learning • Medical AI

2026 – Present

- Built a multi-model system for chest X-ray analysis integrating heterogeneous AI tools.
- Developed a conflict resolution pipeline to reconcile contradictory outputs using semantic reasoning and confidence calibration.
- Designed trust-aware decision framework with uncertainty-based abstention for reliable predictions.
- **Links:** GitHub Repository

TECHNICAL SKILLS

Languages: C/C++, Python, Java, Kotlin, JavaScript, SQL

Backend: Spring Boot, Spring AI, Node.js, Express.js, REST APIs

AI/ML: PyTorch, TensorFlow, Scikit-learn

Databases: PostgreSQL, MongoDB, Redis

Tools: Linux, Git, Docker, Firebase

Concepts: System Design, API Development, Data Processing, Data Analysis

ADDITIONAL INFORMATION

Languages: Bangla (Native), English (Fluent), Hindi & Urdu (Conversational), Arabic (Reading)

Programming Profiles: NeetCode: [mninadmno](#) LeetCode: [mninadmno](#)