Mohammad Sadat Hossain

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Education

Bangladesh University of Engineering & Technology (BUET)　*Mar 2020 – Mar 2025*
Bachelor of Science in Computer Science and Engineering　Dhaka, Bangladesh

- CGPA: **3.99/4.00** | Class Rank: **2nd out of 120 students**
- **Dean's List Award** | Received in all three academic years awarded (2021–2023)
- **University Merit Scholarship** | Achieved in all seven terms attended (2020–2023)

Professional Experience

Bangladesh University of Engineering & Technology　*Nov 2025 – Present*
Lecturer, Dept. of Computer Science and Engineering　Dhaka, Bangladesh

- Teaching undergraduate courses in the Department of Computer Science and Engineering
- Conducting lab sessions and mentoring students in coursework and research projects

Bangladesh University of Engineering & Technology　*Apr 2025 – Nov 2025*
Adjunct Lecturer, Dept. of Computer Science and Engineering　Dhaka, Bangladesh

- Instructed approximately 360 students across 6 courses including programming and data structures
- Designed and evaluated assignments, exams, and lab assessments

Research

From MSA Transformer to Graph Neural Network: A Deep Learning Approach to Phylogenetics
Undergraduate Thesis | Supervisor: Dr. Md. Shamsuzzoha Bayzid

- Designed novel deep learning architectures combining MSA Transformer and Graph Neural Networks to capture evolutionary relationships from multiple sequence alignments
- Developed end-to-end pipeline for phylogenetic tree reconstruction with improved accuracy over traditional methods

Selected Projects

TaskFlow | AI-Powered Task Management Platform　*Feb 2024*
Full-Stack Web Application　GitHub | Demo

- Built comprehensive task planner with AI assistant for intelligent content generation and task suggestions
- Implemented real-time collaboration features with progress tracking using SvelteKit, Express.js, and PostgreSQL

ExploreMate | Travel Planning Application　*Oct 2023*
Full-Stack Web Application　GitHub | Demo

- Architected travel suggestion system with intelligent itinerary planning and destination recommendations
- Designed system using BPMN, ER, UML diagrams; implemented with SvelteKit and Express.js

Harmony | Academic Social Media Platform　*Sep 2022*
Full-Stack Web Application　GitHub

- Developed real-time learning resource management platform with chat, file sharing, and event management
- Built with Svelte, TailwindCSS frontend and PostgreSQL with PL/pgSQL for complex database transactions

Football Club Manager　*Jul 2021*
Desktop Application　GitHub | Demo

- Created JavaFX application with multithreaded socket programming for real-time server-client communication
- Web scraped and indexed 16,000+ player profiles with searchable database and live player exchange features

Technical Skills

Languages	C, C++, Python, Java, JavaScript, TypeScript, Bash, SQL, 8086 Assembly
ML/AI	PyTorch, Scikit-learn, Hugging Face Transformers, vLLM, Computer Vision, NLP
Web Development	SvelteKit, Express.js, Node.js, TailwindCSS, REST APIs
Databases	PostgreSQL, Oracle, PL/pgSQL, Database Design and Optimization
Tools & DevOps	Git, Docker, Linux, LaTeX, Beamer, Wazuh SIEM

Achievements

24th Place | ICPC Asia Dhaka Regional Contest (310 teams)   2024
Finalist | Robi Datathon 2024   2024
Champion | Hackathon (DevOps), BUET CSE Fest   2023
15th Place | Inter University Programming Contest, BUET CSE Fest (105 teams)   2023
4th Place | AI Contest, BUET CSE Fest   2022
2nd Runners Up | NASA Space Apps Challenge, Dhaka Region   2021