Fahad Bin Mahbub

✉ fahadbm3234@gmail.com 📞 +880 1878422339 📍 122/5 Katly, Netrakona, Bangladesh

in Fahad Bin Mahbub 🔗 Fahad Bin Mahbub ⌗ Fahad-Bin-Mahbub

Research Interests

- Human-Computer Interaction
- Usable Security and Privacy
- Augmented and Virtual Reality
- Natural Language Processing

Education

Shahjalal University of Science and Technology, Sylhet, Bangladesh *Feb 2020 – July 2025*
B.Sc. in Computer Science and Engineering (CGPA: 3.76/4.00)

Notre Dame College, Dhaka, Bangladesh *2017 - 2019*
Higher Secondary Certificate Examination (GPA: 5.00/5.00)

Anjuman Adarsha Govt. High School, Netrakona, Bangladesh *2012 - 2017*
Secondary School Certificate Examination (GPA: 5.00/5.00)

Language

IELTS(Academic) *Sept 2025*
Overall Band 7.5 (Listening 8.5 / Reading 8.5 / Writing 7.0 / Speaking 6.0)

Research Experience

Exploring the Adoption of Email Encryption in Bangladesh: Awareness Levels, Challenges, and Usability Insights *Undergraduate Thesis* — *Prototype* ↗

Conducted a mixed-methods study on the usability and adoption challenges of email encryption tools among Bangladeshi users. Collected and analyzed survey data alongside in-depth usability testing to evaluate performance, workload, and user trust. Compared multiple encryption solutions using statistical and thematic analysis, and proposed a prototype addressing key usability barriers. Findings revealed a critical gap between security awareness and adoption in Bangladesh, highlighting the importance of usability and trust alongside technical robustness in secure communication systems.

Publications

Conference Preceedings

- F. Bin Mahbub, M. H. Mim and M. S. Rahman, "Sentiment Analysis of Beauty Product Reviews in Bangladesh: A Comprehensive Study Using Transformer-Based Models," *2024 27th International Conference on Computer and Information Technology (ICCIT), Cox's Bazar, Bangladesh, 2024*, pp. 2712-2717, doi: 10.1109/ICCIT64611.2024.11021928. ↗

Work Experience

New Vision Institute of Technology — Remote *Texas, USA* *Oct 2023-Apr 2024*
NVIT *Institute portal and LMS* *link ↗*

The platform includes an instructor and talent portal that helps users find suitable matches and request assistance. Developed a full-stack web application using TypeScript, React, Redux Toolkit, Node.js, Express.js, and MongoDB. Implemented a custom attendance system within the instructor portal and integrated Zoom and Google Meet management features to support online classes and live sessions.

Paymoor *Digital wallet*

Developed the frontend and integrated APIs for the registration and login process with KYC verification, enabling

users to add funds from banks, cash out through agents, locate nearby agents, and make merchant payments via QR code, using JavaScript and React Native.

Outlier- AI Training Platform *Oct 2024-July 2025*

Contributed to several projects, writing desired model outputs for different prompt types (e.g., database queries, front-end code generation, general query prompts, and voice inputs), focusing on what a "good" response should contain in each case.

Academic Projects

PaperTrack *Web Technologies* [link ↗]

This platform enables secure tracking and management of exam papers, including real-time notifications to examiners. Developed the backend with features such as user creation, JWT-based session handling, password hashing, Google Sign-In, and session management using MongoDB. Implemented role assignments, email invitations for onboarding users, exam creation, and a comprehensive exam paper management system.

NeonateCare *IoT* [Demonstration ↗]

This IoT-based neonate monitoring system uses a DHT11 sensor to measure temperature and humidity around a newborn and automatically controls the fan and cradle based on the collected data. The system employs an ESP8266 Wi-Fi module and ThingSpeak cloud for seamless communication between the Arduino and the mobile application. Developed the cradle prototype and implemented the functional Arduino code for real-time monitoring and control.

Book - E *Database System Lab* [link ↗]

A full-stack book management web application built with React, Node.js, and MySQL, enabling users to sell, lend, buy, or borrow books. The platform includes user registration, profile management, categorized book listings (for sale, loan, or giveaway), an advanced search and filter system, and a cash-on-delivery transaction feature for secure exchanges.

Bachelors-Far From Home *Object Oriented Programming(Java)* [link ↗]

This platform streamlines financial and household management for bachelor groups through secure RESTful APIs. Developed the backend using Spring Boot with features such as user registration, JWT-based authentication, password encryption with BCrypt, and MongoDB data storage. Implemented modules for managing mess groups, tracking individual and shared earnings/expenses, and generating detailed monthly summaries. Integrated role-based access control to ensure data isolation between users and mess groups, enabling a seamless and secure expense-tracking experience.

Problem Solving

- **Codeforces:** The_Philomath ↗ — Solved **288** problems
- **VJudge:** philomath ↗ — Solved **120** problems
- **LeetCode:** Fahad Bin Mahbub ↗ — Solved **29** problems

Technologies

Languages: C, C++, Java, SQL, Python, JavaScript, TypeScript, HTML, CSS.

Framework: Next.js, React, React-Native, Express.js,

Database: MySQL, MongoDB, Prisma, Firebase.

Data Science: NumPy, Pandas, Matplotlib, Sci-kit learn.

Others: GIT, Figma, Docker

Certifications

- Docker Training Course for Absolute beginner.
- AWS Academy Cloud Foundations.
- AWS Academy Cloud Developing.
- AWS Academy Web Application Builder.

Recognition

- Graduated with distinction in B.Sc. in Computer Science and Engineering.
- Received scholarship in Secondary School Certificate exam
- Received scholarship in Junior School Certificate exam
- **Code Samurai Hackathon:** Secured **1st place at SUST** in the *API Development* stage

Extra curricular activities

Executive Member — SUST CSE CARNIVAL 2024 *2024*

Organized an AI Hackathon to promote innovation and collaboration among students.

Patrol Leader — Bangladesh Scouts *2014 - 2017*

Organized team activities, promoted teamwork, and represented the patrol in regional scouting events.

References

Dr. Farida Chowdhury
Professor, Dept. of CSE,
BRAC University, Dhaka, Bangladesh.
farida.chowdhury@bracu.ac.bd ☑
+880 1743018917

Dr. Md Forhad Rabbi
Professor, Dept. of CSE,
Shahjalal University of Science and Technology,
Sylhet, Bangladesh.
frabbi-cse@sust.edu ☑
+8801844175805

Dr. Mohammad Shahidur Rahman
Professor, Dept. of CSE,
Shahjalal University of Science and Technology,
Sylhet, Bangladesh.
rahmanms@sust.edu ☑
+880 1914930807