

Al-Amin Sany

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 Al-Amin Sany |  Saaany

Dhaka, Bangladesh

PERSONAL PROFILE

A Computer Science & Engineering (CSE) graduate (graduated in March 2025) from Bangladesh University of Engineering & Technology (BUET). Interested in large language models, machine learning, and security.

EDUCATION

- **Bangladesh University of Engineering and Technology(BUET)** 2025-present
Dhaka, Bangladesh
M.Sc. Engg. in Computer Science and Engineering (ongoing)
- **Bangladesh University of Engineering and Technology(BUET)** 2020-25
Dhaka, Bangladesh
B.Sc. Engg. in Computer Science and Engineering
 - CGPA: 3.88/4.00
 - Dean's list award and university merit scholarship recipient
- **Notable Coursework:** Machine Learning | Computer Security | Computer Networking | Artificial Intelligence | Data Structures & Algorithms | Object Oriented Programming | Data Communication | Database Management System | Software Engineering | Operating Systems
- **St. Joseph Higher Secondary School** 2017-19
Dhaka, Bangladesh
Higher Secondary School Certificate
 - GPA: 5.00/5.00
- **Panchagarh B.P. Govt. High School** 2015-17
Panchagarh, Bangladesh
Secondary School Certificate
 - GPA: 5.00/5.00

PROFESSIONAL EXPERIENCE

- **University of Asia Pacific (UAP)**
Lecturer, Department of CSE | July, 2025 - present
 - **Courses Conducted:** Computer Graphics, Computer Graphics Lab & Technical Writing and Presentation

RESEARCH EXPERIENCE

- **LLM4SRS: Spatial Feature Based Similar Region Search Using Large Language Models**
Undergraduate Thesis, CSE-BUET | Accepted to the findings of EACL 2026
 - Developed a novel framework leveraging Large Language Models (LLMs) for region similarity search. Represented urban regions through natural language descriptions of spatial features, enabling context-aware similarity ranking. Demonstrated improved accuracy and adaptability over traditional methods using real-world datasets.
 - **Tools & Technology:** Python (Pytorch), Llama3
 - **Supervisor:** Dr. Tanzima Hasheem, CSE, BUET
 - **Mentors:** Md. Ashraful Islam, Dr. Mohammed Eunus Ali, CSE, BUET

UNIVERSITY PROJECTS

- **DormEase: A Dormitory Management System** Project Link
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Tools: NodeJS, Express, ReactJS, Tailwind CSS, Multer, Supabase
 - DormEase is an efficient platform designed to streamline dormitory management processes.
 - Features: Simplified room allotment and mess management, integrated complaint resolution system, and centralized communication via a news feed and digital noticeboard.
- **BloodConnect: A Comprehensive Blood Donation & Request Platform** Project Link
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Tools: JavaFX, OracleDB, CSS, SceneBuilder
 - BloodConnect is a user-friendly platform designed to simplify blood-related interactions, enabling seamless communication between users and blood bank managers.
 - Features: Request and donate blood effortlessly, access comprehensive blood-related information, and streamline solutions to challenges in locating and procuring blood.
- **NeuroDetectNet: Advanced EEG Classification for Neurodegenerative Disease** Project Link
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Tools: Pytorch, Numpy, Matplotlib, Matlab

- NeuroDetectNet is a machine learning framework aimed at classifying neurodegenerative diseases such as Alzheimer’s Disease (AD) and Frontotemporal Dementia (FTD) along with normal subjects using routine EEG data.
- Implemented a hybrid CNN-LSTM model to capture both spatial and temporal dependencies in EEG signals, enhanced with an attention mechanism for focusing on relevant temporal segments.

• **Machine Learning Algorithms and Feed-Forward Neural Network from Scratch**

[Project Link](#)

Tools: *Python, Numpy, Sciki-learn, Pandas, Seaborn*



- Implemented Logistic regression with Bagging and Stacking
- Trained and evaluated a feed-forward neural network from scratch using only numpy
- Implemented PCA and clustering with expectation-maximization algorithm on Poisson mixture model

• **Cryptography Algorithms, Malware Analysis and Security Attacks**

[Project Link](#)

Tools: *Python, Docker, Wireshark, Azure Cloud, TigerVNC, Snort*



- Implemented cryptography (AES, Diffie Hellman, RSA) algorithms with socket communication
- Demonstrated buffer-overflow attack and performed pedagogical malware functionalities within containers
- Demonstrated the Network Intrusion and Detection System (NIDS) using Snort

• **Football Club Manager: A Club Football Player Auction Simulator**

[Project Link](#)

Tools: *JavaFX, CSS, SceneBuilder*



- Football Club Manager is an interactive application that simulates the auctioning of football players for club management.
- Features: Built on the JavaFX platform for a seamless user interface, utilizes Java’s networking capabilities for real-time auction transactions and implements multi-threading for efficient parallel processing over the network.

TECHNICAL SKILLS

Languages: C | C++ | Java | Python | Javascript | x86 Assembly | Bash | SQL | HTML | CSS

Frameworks/Libraries: JavaFX | NodeJS | ReactJS | Bootstrap | Tailwind CSS

Machine Learning: Pytorch | Numpy | Pandas | Matplotlib | Scikit-learn

Databases: PostgreSQL | Oracle | MySQL

Tools/Software: Git | Latex | Cisco Packet Tracer | Wireshark | Snort

HONORS AND AWARDS

• **Competition Achievement**

Bangladesh Physics Olympiad | 2019 & 2017

- 4th in C(higher secondary) category in 9th regional physics olympiad (Dhaka-North)
- 12th in B(secondary) category in 7th regional physics olympiad (Rangpur)

• **Dean’s List Award**

Bangladesh University of Engineering and Technology (BUET) | 2020 - 2025

- Received university merit scholarship for excellent grades

• **Merit Scholarships**

Education Board Scholarship | 2017 & 2019

- Talentpool scholarship recipient (SSC, Dinajpur Board), 2nd in Panchagarh District
- General scholarship recipient (HSC, Dhaka Board)

REFERENCES

Dr. Tanzima Hashem

Professor, Department of CSE

Bangladesh University of Engineering and Technology

Email: tanzimahashem@gmail.com

Relationship: Undergraduate Thesis Supervisor