

TUTUL MAJUMDER

Computer Science & Engineering Student

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Summary

Final year Computer Science & Engineering student specializing in Machine Learning, Deep Learning, NLP, and Computer Vision with Python, PyTorch, TensorFlow, and Scikit-learn. Proven track record across full-stack web development, IoT, and published AI research — with hands-on experience building and deploying end-to-end ML models and backend systems.

Education

Bachelor of Science (BSc), Computer Science and Engineering Jan 2023 – Present
American International University-Bangladesh CGPA: 3.93 / 4.00

Higher Secondary Certificate – Science Jul 2019 – Dec 2021
Government Science College, Tejgaon, Dhaka GPA: 5.00 / 5.00

Achievements

- AIUB Dean's Honorable Mention Award
- Recipient of Merit-based Scholarship awarded on the basis of academic excellence

Skills

Web Development: PHP, JavaScript, HTML5, CSS3

Core Programming: Python, R, C++, C#, Java

AI & ML: PyTorch, TensorFlow, Keras, Scikit-learn, Pandas, NumPy

Domain Knowledge: Natural Language Processing (NLP), Computer Vision (CV)

Databases: Oracle Database, MySQL

Hardware & IoT: ESP32, Arduino, Proteus

Tools: MATLAB, AutoCAD, Git, GitHub, Jupyter Notebook

Languages: Bangla (Native), English (Fluent)

Publications

Journal Paper

[J1] Nadim, K. M., Majumder, T., Ifti, M., Pushpita, S. J., Rahman, S., and Zabin, M. (2026). Enhancing Real-Time Weapon Detection Using RF-DETR: A Transformer-Based Approach for Public Safety Surveillance. *International Journal of Computing and Digital Systems*. (Under Review)

Conference Paper

[C1] Mahmud, K., Majumder, T., Alavi, I. F., Nur, Z., Al Sohan, M. F. A., Rahman, S. S., and Nahar, A. (2025). Real-Time Fusion of Behavioral and Transactional Data for Fraud Detection. *3rd International Conference on Advancing Sustainable Futures (ICASF 2025)*, Abu Dhabi, UAE, December 10–11, 2025. (Proceedings Publication Pending)

Research Interest

Machine Learning & Deep Learning, Natural Language Processing (NLP), Computer Vision (CV), IoT

Projects

Hostel Management System | [Hostel_management_system](#) Sep 2025

- Admin module for student admissions, room assignments, attendance tracking, and complaint handling.
- Designed database schema ensuring data consistency across Student, Health, and Accounting modules.
- **Stack:** PHP, MySQL, JavaScript, HTML5, CSS3, XAMPP

AI Text Detector | [ai-text-detector](#) Jan 2026

- Classified text as human-written or AI-generated using a fine-tuned RoBERTa architecture.

- Built a complete ML pipeline with custom preprocessing, tokenization, and GPU-accelerated inference.
- **Stack:** Python, RoBERTa, PyTorch, Streamlit, Hugging Face, Scikit-learn

Champions Deck: Esports Tournament Management System | [ChampionsDeck](#)

Feb 2025

- Desktop app for tournament management with RBAC, OTP-based authentication, and email verification.
- Engineered full tournament lifecycle — team registration, match scheduling, and score administration.
- **Stack:** C#, .NET Framework, SQL Server, SMTP Protocol, SSMS

Certifications

Cisco IT Essentials | [View Certificate](#)

May 2023

Cisco Networking Academy

- Proficiency in PC hardware, Linux OS, and network security.

Extracurricular Activities

Organizer

Oct 2023 – Present

AIUB Research & Development Club (R&DC)

- Organised research events, technical seminars, and workshops for the university community.

Participant – 7th Harvard HSIL Hackathon

Apr 2026

Harvard T.H. Chan School of Public Health – Health Systems Innovation Lab

- Presented GoldenScope AI — an AI-based pediatric screening-to-referral solution for Goldenhar Syndrome, as part of AIUB_Hydra Team Bangladesh.

Participant – Kaggle-based Datathon

Dec 2025

CUET CSE Fest 2025

- Competed in an image data challenge, applying computer vision and deep learning techniques.