

TASFIA NOOR CHOWDHURY

tasfiaa.chowdhury@gmail.com | +880 1631 107 299 | [LinkedIn](#) | [Website](#) | [GitHub](#)

SUMMARY

Mechatronics Engineering graduate (Senior Year GPA: 3.96/4.00) with research experience in machine learning, computer vision, and data-driven analytics. Published work in AI-based flood monitoring and healthcare optimisation. Five-time Dean's Award recipient and Aspire Leaders Fellow (Harvard Business School Initiative). Seeking opportunities to apply interdisciplinary research and engineering skills in dynamic, impact-driven roles.

EDUCATION

B.Sc. in Mechatronics & Industrial Engineering Feb 2019 – Jun 2024
Chittagong University of Engineering and Technology (CUET), Bangladesh

- CGPA: 3.63/4.00 | Senior Year GPA: 3.96/4.00 | Class Rank: 8th
- Dean's Award, 5 consecutive semesters (GPA \geq 3.75)
- Key coursework: Machine Learning, Neural Networks, Robotics System Design, Industrial Automation, System Dynamics & Control

Higher Secondary Certificate (HSC) — GPA: 5.00/5.00, Government Scholarship Jun 2018
Secondary School Certificate (SSC) — GPA: 5.00/5.00, Government Scholarship Jun 2016

RESEARCH & PUBLICATIONS

- T. N. Chowdhury, [Co-author 2], [Co-author 3], "AI-Driven Water Segmentation for Enhanced Flood Monitoring," *arXiv*, 2025. doi:10.48550/arXiv.2501.08266
Developed deep learning models for automated flood detection; achieved **90.57% accuracy** by augmenting datasets with diverse flood imagery.
- T. N. Chowdhury, [Co-author 2], [Co-author 3], "A Hybrid Data-Driven Approach for Analyzing Inpatient Length of Stay," *arXiv*, 2025. arXiv:2501.18535
Applied ML and statistical methods to hospital data; proposed resource-optimisation strategies to reduce patient waiting times.

Replace [Co-author] placeholders with full names before submitting.

HONOURS & AWARDS

Aspire Leaders Program Fellow (Harvard Business School Initiative)	2025
Shoktikonna Leadership Cohort Graduate (GIZ, EU, World Bank)	2024
Dean's Award , CUET — 5 consecutive semesters	2019–2024
2nd Runner-Up , Project Idea Competition, CUET	2022
Semi-Finalist , HULT Prize @ CUET	2019
Regional Winner , English Olympiad & Physics Olympiad	2017
Government Scholarship , HSC & SSC Examinations	2016, 2018

TECHNICAL SKILLS

Programming & ML:	Python (Pandas, NumPy, Scikit-learn), TensorFlow, PyTorch, MATLAB, C
Automation & Robotics:	Factory I/O, Siemens TIA Portal, PLC (Ladder Logic), Arduino, UR3, Turtle Bot
Design & Simulation:	AutoCAD, SolidWorks, Proteus, Tinkercad, 3D Printing
Tools & Analytics:	L ^A T _E X, SPSS, Power BI, MS Excel (Advanced), Git/GitHub, Matplotlib, Seaborn

SELECTED PROJECTS

- Smart Irrigation System** 2023
Designed an automated system using real-time soil-moisture and weather data for water-efficient agriculture. Selected among **Top 250 projects** at Unibator BD.
- Automated Box-Sorting System** 2023
Programmed a PLC-based sorting mechanism using Factory I/O, Ladder Logic, and vision sensors. Optimised conveyor speed and sensor-actuator synchronisation.
- Eye-Gaze Controlled Wheelchair** 2022
Developed a prototype wheelchair controlled via eye-gaze tracking for mobility-impaired users. **2nd Runner-Up**, CUET Project Idea Competition.

WORK EXPERIENCE

Communication & Design Lead (Remote) — ILM International School Jul 2023 – Present

- Spearheaded communication strategies contributing to a **25% increase** in course enrolment.
- Coordinated cross-functional teams across design, marketing, and administration.

STEM Instructor & Academic Mentor — Freelance / Remote Jan 2021 – May 2023

- Delivered customised curricula in Physics, Mathematics, and IT; mentored students toward measurable academic improvements using project-based learning.

PROFESSIONAL TRAINING

Industrial Induction, Berger Paints Ltd (Sep 2023) | EHS & ISO 45001:2018, Marico BD (2023) | Industrial Operations, PepsiCo BD (2023)

LANGUAGES

Bengali (native), English (professional proficiency)

References available upon request.