

Mehedi Mahmud Kaushik

Mohammadpur, Dhaka, Bangladesh

+8801720507599 | mehedimhmd@gmail.com | github.com/KaushikMahmud | linkedin.com/in/kaushikmahmud

Education

American International University-Bangladesh (AIUB)

Dhaka, Bangladesh

Bachelor of Science in Computer Engineering

Jan 2019 - May 2022

- **Final grade (CGPA):** 3.98/4.00
- **Courses:** Data Structure, **Computational Statistics** and Probability, Algorithms, Object Oriented Programming, **Computer Graphics**, Operating System, **Artificial Intelligence** and Expert System, **Machine Learning**, Human Computer Interaction, **Computer Vision** and Pattern Recognition, Data Warehousing and Data Mining
- **Undergraduate Project Title:** Deep Learning-based Prediction of Football Players' Performance during Penalty Shootout.
[\[Watch Demo of the project\]](#)

Work Experience

Dr. Anwarul Abedin Institute of Innovation, AIUB

Dhaka, Bangladesh

Research Assistant

Jun 2022 - Dec 2023

- Constructing a machine learning ecosystem for detecting the TV channels using Python, OpenCV and Tensorflow.
- **Incorporating Tesseract OCR and ResNet Model** together for **11% increase** in TV channel logo detection from previous version.
- Making the system compatible across 13 new set-top box (STB) devices such as Akash, Jadoo, local ones etc.
- Devising experimental study for **comparing existing ResNet model** with GoogleNet, VGG16, AlexNet, EfficientNet and MobileNet on the custom dataset.
- **Technical Skills:** Python with PyTorch, NumPy, Matplotlib, Pandas, Scikit-learn, OpenCV, Tensorflow, Ubuntu Linux, Linux tools, Git.

Dr. Anwarul Abedin Institute of Innovation, AIUB

Dhaka, Bangladesh

Research and Development Intern

Apr 2022 - May 2022

- **Increased the dataset** from 10,000 frames to **80,000 frames** containing 24 TV channels' logo.
- Experimented with EasyOCR and Tesseract for finding accurate result with optimum speed in raspberry pi 4.
- **Technical Skills:** Python with EasyOCR, Tesseract OCR, Ubuntu Linux, Linux tools.

WeHealth Bangladesh

Dhaka, Bangladesh

Co-founder

Sep 2019 - Dec 2021

- Onboarded over **30 doctors** from 8 departments in our platform.
- Developed the website <http://wehealthbd.com/>, which gave telemedicine service during the time of Covid.
- **Led Health Camps** in two schools **with over 300 students** that focused on ensuring early detection of health disorders among children.
- **Soft Skills:** Leadership, Strategic Thinking, Conflict Management, Product Validation, Presentation skills.

Leadership and Teamwork Experience

IEEE AIUB Student Branch

Dhaka, Bangladesh

Volunteer

Jul 2021 - Jul 2022

- Worked with Ex-com members and volunteers in planning and executing 10+ online webinars in 2021.
- Recruited 120+ IEEE members from AIUB with the help of online booth.
<https://ieeelaiubsb.com/volunteers-2021/>
- **Soft Skills:** Teamwork, Time Management, Communication, Presentation skills.

AIUB Robotic Crew

Dhaka, Bangladesh

Electrical Crewman

Aug 2019 - Dec 2020

- Spearheaded the design and construction of the electrical system of a rover from inception to completion.
- **Increased accuracy** of the system to complete the tasks **by 23%** through rigorously testing and optimizing the system.
- Proactively maintained and elevated the performance of the power distribution system for optimal functionality.
- Conducted rigorous and comprehensive **testing of the rover's autonomous system** to ensure maximum efficiency and reliability
- **Technical Skills:** PCB Design (NI Multisim, Proteus), Hardware Implementation, Arduino, ROS.
[\[Watch Intro Video of the Rover\]](#)

Skills

Programming	Python (Pandas, PyTorch, NumPy, Scikit-learn, Xgboost, OpenCV, Tensorflow), C++, Java, Database (Oracle, MySQL).
Miscellaneous	Linux, Shell (Bash), \LaTeX (Overleaf/R Markdown), Microsoft Office.
Development tools	Arduino, Jupyter Notebook, Raspberry pi, Visual Studio, Git, Virtual Box, Visual Studio Code, Spyder.
Soft Skills	Time Management, Teamwork, Problem-solving, Engaging Presentation.

Academic Achievements

2023	Ranked in the top 1% , Among the engineering students currently studying in AIUB (Bachelor's CGPA)	Bangladesh
2023	Vice Chancellor's Award , For being the best capstone project for the Academic Year 2021-22 from the Computer Engineering department	Bangladesh
2023	Summa Cum Laude , For having a CGPA between 3.95 and 4.00	Bangladesh
2023	Dean's List Honors , (minimum semester GPA of 3.75 on a minimum of 14 credit hours): 5 Semesters	Bangladesh
2020	Academic Scholarship , For Regular Student (minimum semester GPA of 3.75 on a minimum of 14 credit hours, and 80% attendance)	Bangladesh
2019	Merit Based Scholarship , For Freshman Student (GPA 5.00 in SSC and HSC, and Satisfactory Grade in Scholarship Exam)	Bangladesh

Publications

Action Recognition Based Real-time Bangla Sign Language Detection and Sentence Formation

Shartaz Khan Akash, Debobrata Chakraborty, **Mehedi Mahmud Kaushik**, Barsan Saha Babu, Md. Saniat Rahman Zishan

2023 3rd International Conference on Robotics, Electrical and Signal Processing Techniques (ICREST), 2023

DOI: 10.1109/ICREST57604.2023.10070072

Deep Learning-Based Prediction of Football Players' Performance During Penalty Shootout

Debobrata Chakraborty, **Mehedi Mahmud Kaushik**, Shartaz Khan Akash, Md. Saniat Rahman Zishan, Md. Shahriar Mahmud

2023 26th International Conference on Computer and Information Technology (ICCIT), 2023

The Effects of Class Rebalancing Techniques on Ensemble Classifiers on Credit Card Fraud Detection: An Empirical Study

Mehedi Mahmud Kaushik, S. M. Hasan Mahmud, Md Alamgir Kabir, Dip Nandi

First International Conference on Applied Data Science and Smart Systems (ADSSS 2022), 2022

DOI: 10.1063/5.0177524

References available upon request.