Mohammed Ayman

mdaymanyousuf03@gmail.com | +8801601980228 | linkedin.com/in/mohammedayman | github.com/mohammedayman03

PROFESSIONAL SUMMARY

Inspired and technical-oriented CSE student with interests in AI, computer vision, and effective mobile application development. Experienced in building AI prototypes, robotics systems, and production-level Android apps with efficient data pipelines and reliable architectures. Proficient in speedy prototyping, testing and providing consumer-friendly solutions across concept to launch.

EDUCATION

BRAC University   Dhaka, Bangladesh
Bachelor of Science in Computer Science and Engineering   *Oct 2021 – Present*
Presidency International School   Chattogram, Bangladesh
GCE O Levels   *2019 — GPA: 4.75*
Presidency International School   Chattogram, Bangladesh
GCE A Levels   *2021 — GPA: 5.00*

EXPERIENCE

Senior Executive   Sep 2022 – Nov 2024
BRAC University Response Team   *Dhaka, Bangladesh*

- Coordinated 10+ large-scale social impact initiatives, including blood drives, food distribution programs, and winter relief campaigns.
- Supervised and guided 50+ volunteers while managing logistics supporting 300+ beneficiaries per event.
- Increased volunteer engagement and donation turnout by 40% through strategy-driven planning and data-informed outreach.
- Collaborated with university offices and external partners to ensure smooth execution of community service operations.

Leadership & Community Engagement   Feb. 2018 – Apr. 2021
Duke of Edinburgh Award — Bronze & Gold Level   *Dhaka, Bangladesh*

- Completed structured programs involving skill development, physical training, voluntary service, and outdoor expeditions.
- Organized and contributed to community service activities such as tutoring, environmental cleanup, and group coordination tasks.
- Developed resilience, teamwork, and leadership through multi-month challenge-based activities and expedition planning.

PROJECTS

Business Sales & Expense Tracker App — Kotlin, Android Studio, Room DB

- Developed an Android app for shop owners to log daily sales, expenses, and transactions.
- Built visual analytics and monthly summaries using MPAndroidChart for financial insights.
- Implemented offline-first architecture with Room DB, multilingual UI, and Excel export.

Fire & Gas Hazard Mitigation Robot — Arduino, Embedded Systems

- Engineered an autonomous robot detecting fire, gas leaks, and environmental hazards.
- Implemented actuator responses and micro-controller decision loops for real-time mitigation.
- Designed circuitry, calibrated sensors, and optimized motor control for reliable operation.

Bengali Sign Language Error-Correction Model (Thesis) — Python, TensorFlow, Keras, OpenCV

- Developed an image-to-image model using metric learning with triplet loss to correct 36-class gestures.
- Processed and augmented 2,700-image dataset resized to 128×128 for efficient training.
- Tested MobileNetV2, DenseNet121, and a custom CNN; achieved **66.7% top accuracy** with MobileNetV2.
- Designed complete pipeline: data preprocessing → feature embedding → model training → validation → analysis.

Programming Languages:	Python, Java, Kotlin, C, C++, JavaScript, SQL (PostgreSQL), HTML/CSS
Machine Learning & Data Science:	Scikit-learn, XGBoost, NumPy, Pandas, Matplotlib, Seaborn, TensorFlow, PyTorch
Deep Learning:	CNNs, LSTM, BiLSTM, Transformers (BERT, RoBERTa), Autoencoders, Triplet Loss Embeddings, Image-to-Image Models
Computer Vision:	OpenCV, Image Preprocessing, Data Augmentation, Feature Extraction, Gesture/Sign Recognition
Natural Language Processing:	Tokenization, Text Classification, Named Entity Recognition, NLTK, SpaCy, BERT-based Models
Web & Backend Development:	Django, Flask, Laravel, REST APIs, WordPress, Bootstrap
Android Development:	Android Studio, Kotlin/Java, Jetpack Compose, Room DB, XML UI, Excel Export, Offline-first Architecture
Mobile & Embedded Systems:	Arduino, Sensors, Actuators, Fire & Gas Hazard Mitigation Robot, Motor Control
Databases:	PostgreSQL, MariaDB, Firebase, Room DB
Developer Tools:	Git, GitHub, VS Code, PyCharm, Android Studio, IntelliJ, Jupyter Notebook, Colab, Kaggle
Soft Skills:	Presentation Design, Public Speaking, Team Collaboration, Academic/Research Writing, MS PowerPoint