

Yumna Islam

+88-017-6006532 | yumna.islam001@gmail.com | [My website](#)
 [LinkedIn](#) |  [Github](#)
Dhaka, Bangladesh

EDUCATION

- **Ahsanullah University of Science and Technology** 2019 - 2023
B.Sc. in Computer Science and Engineering Dhaka, Bangladesh
 - CGPA: 3.81 on a scale of 4.00 (7th in merit position)
 - Thesis Title: Using Automotive ECU and Computer Vision Based Image Processing for Vehicle Lane Keeping (Supervised by Prof. Dr. Kazi A Kalpoma)




RESEARCH INTERESTS

Computer Vision, Machine Learning, Human Computer Interaction, Natural Language Processing






PUBLICATIONS

- [1] **Yumna Islam**, Farzad Azad, C.Z. Md Ruslan, C. Aye Mong Marma, and Kazi A Kalpoma. **A Lane Detection Framework for Automated Vehicle Using Computer Vision**. Published in *International Conference on Power Engineering and Intelligent Systems (PEIS 2023)*, Lecture Notes in Electrical Engineering, vol 1098, Springer, Singapore. (2024) DOI: https://doi.org/10.1007/978-981-99-7383-5_19
- [2] Farhana Azad, **Yumna Islam**, C.Z. Md Ruslan, C. Aye Mong Marma, and Kazi A Kalpoma. **Efficient Lane Detection and Keeping for Autonomous Vehicles in Real-World Scenarios**. Published in *26th International Conference on Computer and Information Technology (ICCIT 2023)*, Cox's Bazar, Bangladesh. IEEE, pp. 1–6. (2023) DOI: 10.1109/ICCIT60459.2023.10440972

RESEARCH EXPERIENCE

- **Undergraduate Thesis** 2022-2023
Using Automotive ECU And Computer Vision Based Image Processing for Vehicle Lane Keeping 
 - Created a lane detection and lane keeping system using image processing pipeline and AURIX microcontroller for autonomous vehicles
 - Implemented lane detection for five different weather conditions, achieving xx accuracy
- **Pattern Recognition Course Project** 2022
Intrusion Detection Using Multiple Machine Learning Models 
 - Implemented several machine learning models, for example- Naïve Bayes, KNN, Clustering, etc for better accuracy in intrusion detection.
- **Natural Language Processing Course Project** 2022
Authorship Attribution using Machine Learning models 
 - Used custom fine tuned LSTM, RNN like ML models for detecting authorship mainly from Bengali corpus (dataset-self-made).

PROJECTS

- **SIMS- Student Internship Management Systems** 2021
Tools: Java Swing, MS SQL & PL/SQL 
 - Developed a database management system to manage student internship applications and company vacancies.
- **Fashion & Lifestyle Blogsite (ALOHA)** 2021
Tools: HTML5, CSS, Javascript, PHP, MySQL with an ASP.NET version 
 - Created a fashion blog website, enabling users to interact with moderated content.
- **Cooling Load Prediction of a Building** 2022
Tools: Python, Matplotlib, Google Colab 
 - Conducted predictive analysis using Python to compare the performance of four machine learning models-linear regression, SVM, KNN and random forest on building cooling load data.
- **Covid19 Vaccine Management System** 2022
Tools: Android Studio, Java, MS SQL 
 - Developed an Android app streamline vaccination scheduling based on user-provided details like age, location, and health.
- **Blind Stick** 2022
Tools: Arduino UNO, C++ 
 - Engineered a low-cost smart blind stick using a microcontroller, sonar, buzzer and LED to assist the visually impaired by detecting obstacles.

SKILLS


- **Languages:** Python, Java, C, C++
- **Web Design & Development:** HTML5, CSS, Bootstrap
- **Databases:** MySQL, MS SQL
- **Design Tools:** Google Colab, Jupyter Notebook, Netbeans, Microsoft Visual Studio, MATLAB, LaTeX
- **Data Science & Machine Learning:** NumPy, Pandas, Scikit-learn, Pytorch, Keras
- **Research Skills:** Data Analysis, Written Communication, Team Collaboration

STANDARDIZED TEST SCORES

IELTS Academic February 2024


Reading	Listening	Writing	Speaking	Overall
8.5	8	7	7	7.5

INDUSTRIAL EXPERIENCE

- **Software Engineer (Test)**


Feb 2025 - Present
Dhaka, Bangladesh

Meghna Bank Ltd

 - Performed UAT, API test case writing and testing of web portals to ensure system stability and business alignment.
 - Collaborated with project managers, developers and business teams for defect tracking, reporting and timely issue resolution.
- **QA Associate** 

Oct 2023 - August 2024
Dhaka, Bangladesh

Nagad Ltd

 - Conducted UAT, regression, UI/UX, and exploratory testing for 5 mobile and web platforms, improving product quality and user experience.
 - Reported and tracked software bugs, working closely with cross-functional teams to ensure rapid defect resolution for a major fintech project.
- **Technology Intern (SQA)** 

Oct 2023 - August 2024
Dhaka, Bangladesh

Nagad Ltd

 - Learned SDLC and STLC processes while writing and executing test cases for live projects.
 - Performed hands-on testing and bug reporting, contributing to the validation and improvement of mobile and web applications.


AWARDS & INVOLVEMENT

- **Dean’s List of Honor (Based on B.Sc Result)**

2023


Ahsanullah University of Science and Technology
- **Supervised Machine Learning: Regression and Classification**

2024

Coursera

 - Skills: Build & train supervised machine learning models for prediction & binary classification tasks, including linear regression & logistic regression.
- **Advanced Learning Algorithms**

2024

Coursera

 - Skills: Tensorflow, Artificial Neural Network, Learning Algorithms, Machine Learning Model Development, Tree Ensembles

REFERENCES

1. **Prof. Dr. Kazi A Kalpoma**
Professor, Computer Science & Engineering
Ahsanullah University of Science and Technology
Email: kalpoma@aust.edu
Undergraduate Thesis Supervisor