Ahmed Azaz Humdoon

Personal Website : ahmedazaz32.github.io **Email :** azazhuoon@iut-dhaka.edu

GitHub : github.com/ahmedazaz32 **Phone :** +8801553658105

About Me

I am an aspiring researcher passionate about making contributions that further advance the disciplines of machine learning and natural language processing. My research interests include different aspects of NLP such as Large Language Models, Natural Language Generation, Automatic Summarization and QA, and Clinical NLP. My aim is to advance techniques that produce explainable, fair, and ethical NLP systems. In general, I am enthusiastic about harnessing the power of AI to solve real-world problems and improve human lives.

EDUCATION

Islamic University of Technology Dhaka, Bangladesh.
Bachelor of Science in Computer Science and Engineering *Jan. 2018 – May. 2022*

- **CGPA : 3.58/4.00**

Notre Dame College Dhaka, Bangladesh.
Higher Secondary Certificate *2015 – 2017*

- **GPA : 5.00**

Dhaka Residential Model College Dhaka, Bangladesh.
Secondary School Certificate *2013 – 2015*

- **GPA : 5.00**

RESEARCH EXPERIENCE (Undergraduate Thesis)

Semi-Automated Approach to Generate Bangla Dataset for QA & Query-Based Text Summarization.

- We provide 3 datasets that tackle three tasks in QA and QBSUM domain.
- Primarily worked with Google NQ dataset.
- We incorporate a semi-supervised approach to annotate data in a semi-automatic manner.
- We introduce HITL (Human-in-the-loop) to ensure the high quality of the dataset.

INDUSTRY EXPERIENCE

Software Development Engineer July 2023 – Present
IQVIA Ltd

- Delivered impactful user features on time for multiple applications, prioritizing best engineering practices for optimal performance and maintainability.
- Assisted in building reusable code and libraries for future use.
- Enhanced the stability and reliability of multiple apps by significantly expanding test coverage.

Assistant Software Engineer January 2023 – June 2023
Millennium Information Solution Ltd

- Developed RESTful APIs to manage authentication, account information, billing and financial transactions of DESCO (Dhaka Electric Supply Company).
- Contributed to developing the official documentation website of the company using Docusaurus which gives full details about the technological architecture of how the softwares are made.
- Gained knowledge about microservice architecture and CQRS design pattern.

Intern March. 2021 – October. 2021
Business Automation

- Worked on developing one in-house information management & analysis system application using Flutter.
- Learned Clean Code, practiced Object Oriented Design SOLID principles and implemented different Design Patterns such as Factory, Singleton, State, Prototype pattern in Java.

Technical Skills

Programming Languages: Python, Java, C/C++.
Deep Learning Frameworks & Libraries: PyTorch, Tensorflow, Keras, Scikit-Learn, NumPy, Pandas, NLTK.
Web Development: HTML, CSS, JavaScript, TypeScript, Angular.
Database Management & Other Tools: MySQL, PostgreSQL, Git, LaTeX, Hugging Face, Jira.

Selected Projects

Chess Game | *C++, graphics.h library* |

- A classic two player chess game that ends when a player is first checkmated.
- graphics.h library was used for creating the interface.
- Players can play it using mouse and keyboard.
- The game is continued till one of the player doesn't play more than 50 moves.

Blood Bank | ***Java, Swing, Oracle, PL/SQL*** |

- A blood bank management system for users and admins.
- Applied PL/SQL inside java to fetch different queries from the Database.
- Used Swing library to create the user interfaces.

Tetris Game | *Python, pygame module* |

- A standard tetris game made in python using different shapes of tetrominoes.
- Pygame module was used to create the interface.

Tumor Extraction Using Image Processing | *MATLAB* |

- Detection and extraction of brain tumor from patient's MRI scan images of the brain.
- The method incorporated some noise removal functions, segmentation and morphological operations.
- Four morphological techniques such as butterworth high and low pass filter, median filter and threshold segmentation were used to detect tumor from the MRI scan images.

Sudoku Game | *Java, JavaFX library* |

- A standard Sudoku Game in a 9*9 box.
- JavaFX library was used to make the user interfaces.

Tutor Find | *Java* |

- Tutor finding mobile application where students and teachers can find each other.
- Students can select their teacher by their preferences such as salary, medium of instruction and location.

Certifications

Deep Learning Specialization | *by Deeplearning.ai [Verify]* Dec 1, 2020

Extracurricular Activities

IUT Computer Society, Event Management Team
10^{th} *IUT ICT FEST - 2019*

- Involved in management of event scheduling and team registration for different programs of the fest.
- Volunteer for the Application Development hackathon event .

REFERENCES

Dr. Md Kamrul Hasan
Professor, CSE Department
Islamic University of Technology
Email: hasank@iut-dhaka.edu

Dr. Hasan Mahmud
Associate Professor, CSE Department
Islamic University of Technology
Email: hasan@iut-dhaka.edu

Sabbir Ahmed
Lecturer, CSE Department
Islamic University of Technology
Email: sabbirahmed@iut-dhaka.edu