# S M Jishanul Islam

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### RESEARCH INTERESTS

My research interests are towards multimodal deep learning. I aim to work on how to represent multimodal information/language to deep learning models to create sophisticated multimodal expert systems.

### **EDUCATION**

United International University, Dhaka, Bangladesh

Bachelor of Science in Computer Science and Engineering CGPA: 3.76/4.00

Thesis Title: AVLoS: Audio-Visual Long Text Scene Summarization

2017 - 2019Academia, Dhaka, Bangladesh 1A, 2Bs

International A Levels: Math, Physics, and Chemistry

## **EXPERIENCE**

### United International University

Dhaka, Bangladesh September 2023 — May 2024

2020 - 2024

Undergraduate Assistant

- Courses: Programming for Data Science, and Object-Oriented Programming for Data Science.
- Aided faculties in preparing the course materials.
- Counselled students for Python programming.

### **PUBLICATIONS**

### Journal paper

Under Review

• Islam, S M Jishanul and Mustakim, Sahid Hossain and Hossain, Musfirat and Mashira, Mysun and Shourav, Nur Islam and Ahmed, MD. Rayhan and Islam, Salekul and Shatabda, Swakkhar and Islam, A.K.M. Muzahidul. 2024. An audio video-based multi-modal fusion approach for speech emotion recognition. Knowledge-Based Systems (Elsevier) [Impact Factor 8.8].

### Conference paper

Accepted

• Ahmmed, Sadia and Rahman, Taimur and Islam, S M Jishanul and Reyad, Al-Momen and Dey, Sonjoy and Purification, James Anthony and Dewan, Md. Farid. 2024. E-MedViTR - Enhanced Vision Transformers with Registers for Biomedical Image Classification. 6th International Conference on Electrical Engineering and Information & Communication Technology (ICEEICT 2024) [Scopus Indexed].

Under Review

• Islam, S M Jishanul and Ahmmed, Sadia and Mustakim, Sahid Hossain and Islam, Mohammad Jawwadul and Shatabda, Swakkhar and Hassan, Md. Rezuwan and Sadique, Farig. 2024. BhaShammo: IPA Transcription of Bengali Regional Dialect using District Guided Tokens. International Conference on Pattern Recognition (ICPR) 2024.

#### Under Preparation

- Ahmmed, Sadia and Mustakim, Sahid Hossain and Islam, S M Jishanul and Ferdous, Samira Raisa and Rahman, Taimur and Osmani, Anas Mohammad Ishfaqul Muktadir and Jobair, Abdullah Al. 2024. Impact of Flow State on the Productivity of Data-Driven Projects.
- Sushmit, Asif and Faruque, Rubayet Sabbir and Dipto, Tawsif Tashwar and Hassan, Md. Rezuwan and Ansary, Md. Nazmuddoha and Hossain, Azmol and Fatema, Kanij and Islam, S M Jishanul and Naswan, Ruwad and Shome, Tanmoy and Zihad, Md Foriduzzaman and Tasnim, Nazia and Humayun, Ahmed Imtiaz and Alam, Md Folam Rabiul and Reasat, Tahsin and Sadeque, Farig. 2024. Bengali Automatic Dialectal Speech Recognition.

# **PROJECTS**

## NurtureAid

September 2023 — Ongoing

GitHub Repository (github.com/sadia-ahmmed/AgeWell-Frontend)

• A real-time cross-platform mobile application that simplifies care through caretakers.

- Uses a user-adaptive dashboard for a personalized experience.
- Uses real-time monitoring to track appointments, activities, and dangers.
- Has a centralized cloud report storage that is easily shareable through links.
- Has family circles that link together multiple accounts and provide real-time communication between them.
- AI-IoT-based systems to provide an interactive and seamless experience for users.
- Tech Stack: React Native, Node.js, Flask, MongoDB, Firebase, LLaMA-Index, PyTorch.
- Acknowledgements: Champion of the Software Engineering Lab project show by the department of CSE-UIU; Champion of the Hult Prize OnCampus round in UIU; Selected for the Hult Prize Summit in Boston.

### **IPBlockchainPro**

March 2023 — Ongoing

GitHub Repository (github.com/S-M-J-I/ipblockchainpro)

- A web3 dApp that helps users, hobbyists, researchers, SMEs, and corporations protect, license, and commercialize Intellectual Property (IP).
- A sophisticated hybrid blockchain to protect the ownership of IPs as NFTs.
- Includes an open decentralized marketplace.
- AI systems to aid user experience.
- Tech Stack: React.js, Node.js, Flask, MongoDB, Firebase, Langchain, Solidity, Hyperledger Besu.
- Acknowledgements: Silver Award (2<sup>nd</sup> place) at the Bangladesh Blockchain Olympiad 2023; Gold Award (Champion) at the International Blockchain Olympiad 2023.

#### Quest Aid

August 2023 — September 2023

GitHub Repository (github.com/sadia-ahmmed/quest-aid)

- An AI-driven web application to connect students, clubs, universities, and organizations under the same platform to grow the ECA landscape of Bangladesh.
- Tech Stack: React.js, Spring Boot, Flask, MySQL, Langchain.

#### iamspecial.com

February 2022 — July 2022

GitHub Repository (github.com/S-M-J-I/iamSpecial-dbms-project)

- A web app built to tackle the lack of misinformation, accessibility and guidance for people with special needs.
- Tech Stack: HTML, CSS, JavaScript, PHP, MySQL.
- Acknowledgements: Champion of the UIU CSE Project Show, Database Management Systems Laboratory.

### ECMS Desktop

September 2021 — January 2022

GitHub Repository (github.com/UIU-Developers-Hub/ECMS-Desktop)

- A desktop app designed to create a comprehensive system for managing the co-curricular activities of students, clubs and forums, and admins of United International University.
- Includes real-time communication with databases and a communication server that can serve text and image messages.
- Tech Stack: Java, JavaFX, MySQL.
- Acknowledgements: Champion of the UIU CSE Project Show, Advanced Object Oriented Programming Laboratory.

### AWARDS

#### Academic Excellence Scholarship

Dhaka, Bangladesh

Received the academic scholarship award for academic excellence from United International University

2020 - 2024

Gold Award (Champion), International Blockchain Olympiad (IBCOL) 2023 Amsterdam, The Netherlands Awarded the Gold Award (€2400) in IBCOL 2023 for solving problems through blockchain technology. November 2023

## Champion, Bhashamul: Bengali Regional Text to IPA National NLP Datathon

Dhaka, Bangladesh

Awarded the champion for implementing the highest-scoring Bengali regional text-to-IPA method.

March 2024

## Champion, Hult Prize OnCampus Round

Dhaka, Bangladesh

Awarded the champion of the Hult Prize UIU OnCampus Round for presenting NurtureAid.

 $March\ 2024$ 

Silver Award(1<sup>st</sup> Runner Up), Bangladesh Blockchain Olympiad (BCOLBD) 2023 Dhaka, Bangladesh Awarded the silver award (second place) in BCOLBD 2023 for solving problems through blockchain technology. July 2023

## 1<sup>st</sup> Runner Up, Intra-University Deep Learning Sprint

Dhaka, Bangladesh

Awarded the 1<sup>st</sup> Runner Up for getting the second-best score in the image-captioning relevance task.

January 2023

# Champion, Software Engineering Lab

Dhaka, Bangladesh

Awarded the champion of the Software Engineering Lab for the project: NurtureAid

September 2023

Champion, Database Management Systems Lab

Awarded the champion of the Database Management Systems Lab for the project: iamspecial.com

Dhaka, Bangladesh

May 2022

Champion, Advanced Object Oriented Programming Lab

Dhaka, Bangladesh

Awarded the champion of the Advanced Object Oriented Programming Lab for the project: ECMS Desktop January 2022

The Daily Star Award

Dhaka, Bangladesh

Awarded The Daily Start Award for academic excellence in IGCSE (O Levels).

2017

Academia High Achievers Award

Dhaka, Bangladesh

Awarded the Academia High Achievers Award for academic excellence in IGCSE (O Levels).

2017

### **SKILLS**

- Programming: C, C++, Java, Python, JavaScript, PHP, Dart, SQL, NoSQL
- Machine Learning: PyTorch, Tensorflow, Scikit-Learn, Matplotlib, Numpy, Pandas, HuggingFace
- Frameworks/Libraries: React.js, Node.js, Spring Boot, Flask, Flutter, Firebase
- Soft Skills: Communication, Leadership, Design Thinking, Public Speaking

### INTERVIEWS AND WORKSHOPS

### Interviews

• Triumph of IBCOL 2023 and the Future of Blockchain in Bangladesh. Invited interview: Jamuna Television (TV). Link: https://shorturl.at/WrMYJ

### Workshops

• Trainer for Hands-on Workshop on Automatic Speech Recognition. Invited by Bengali.AI and IUT Computer Society. Facebook Live Link: https://shorturl.at/3xNtj

#### EXTRA CURRICULARS

**UIU Computer Club** 

General Secretary

Dhaka, Bangladesh

2022 - 2024

- In charge of leading and ensuring smooth communication across the Club during various events and activities.
- Was heavily involved in leading the design, planning, and execution of various activities.

### UIU Entrepreneur Development Forum

Dhaka, Bangladesh

Organizing Secretary

2020 - 2022

- Was heavily involved in leading the design, planning, and execution of various activities.
- Managed the communication hierarchy between the departments and the core committee.

## REFERENCES

# Dr. Swakkhar Shatabda

Professor of Computer Science and Engineering & Director, Data Science Program

 $United\ International\ University,\ Dhaka,\ Bangladesh$ 

E-mail: swakkhar@cse.uiu.ac.bd

Scholar Profiles: United International University - Personal Page — Google Scholar

### Dr. Suman Ahmmed

Associate Professor of Computer Science and Engineering & Director, Center For Development of IT Professionals (CDIP) United International University, Dhaka, Bangladesh

E-mail: suman@cse.uiu.ac.bd

Scholar Profiles: United International University - Personal Page — Google Scholar

### Md. Rayhan Ahmed

Ph.D. Student, University of British Columbia, Vancouver, Canada

Assistant Professor (on study leave) of Computer Science and Engineering,

 $United\ International\ University,\ Dhaka,\ Bangladesh$ 

E-mail: rayhan91@mail.ubc.ca Scholar Profiles: Google Scholar