

# Sahid Hossain Mustakim

**Career Service** Phone number: (+880) 1409096307

Email address: <a href="mailto:sainmustakim@gmail.com">sahidhossainmustakim@gmail.com</a>

in LinkedIn: https://www.linkedin.com/in/sahid-hossain-mustakim-0504691b1/

• Home: 12/A, Nababganj Road, Lalbagh, Posta, 1211 Dhaka (Bangladesh)

#### **ABOUT ME**

Passionate about leveraging machine learning and multimodal approaches to turn innovative ideas into reality. Dedicated research enthusiast with a strong foundation in computer science principles, particularly interested in networking and security. Committed to continuous learning and professional development in the dynamic field of data science.

## **EDUCATION AND TRAINING**

# **Computer Science and Engineering**

**United International University** [ 18 Jan 2020 – May 2024 ]

Final grade: 3.91

# **Higher Secondary Certificate**

**Dhaka City College** [ 2017 – 2019 ]

Final grade: 4.42

# **Secondary School Certificate**

Udayan Uchcha Madhyamik Bidyalaya [ 2007 – 2017 ]

Final grade: 5.00

## **WORK EXPERIENCE**

#### Lecturer

United International University [ 1 Jun 2024 - Current ]

**Courses conducted:** Introduction to Computer Systems, Discrete Mathematics.

### **Undergraduate Assistant**

United International University [ 29 Oct 2022 - 31 May 2024 ]

**Courses supervised:** Structured Programming Language Laboratory, Data Structures and Algorithms I Laboratory, Digital Logic Design Laboratory, Microprocessors and Microcontrollers Laboratory, and Electronics Laboratory.

#### Grader

United International University [ Mar 2023 - Dec 2023 ]

**Course supervised:** Electronics, Probability and Statistics, Data Structures and Algorithms II, and Theory of Computation.

## **HONOURS AND AWARDS**

[ 18 Nov 2013 ] International Blockchain Olympiad

**Gold winner** 

[ 25 Jul 2023 ] Blockchain Olympiad Bangladesh.

**Silver Award Winner** 

UIU

## **Academic Excellence Scholarship - 12 Trimesters**

[ 2 Mar 2024 ] Bhashamul: Bengali Regional Text to IPA National Competition

Champion

[ 14 Jun 2024 ] Hult Prize Boston Summit

**Global Participation** 

[ 28 Feb 2024 ] Hult Prize On-Campus Round

Champion

[ 28 Aug 2023 ] UIU

Champion in CSE Project Show - Sum'23

[ 3 Mar 2022 ] UIU

Champion in CSE Project Show - Fall'21

[ 19 Sep 2022 ] UIU

Runner Up in CSE Project Show - Sum'22

## **PROJECTS**

[ 10 Jun 2023 – 17 Oct 2023 ]

**IPBlockchainPro** This project is a web3 dApp that uses a sophisticated hybrid blockchain to protect the ownership of IPs as NFTs and includes an open decentralized marketplace. Besides AI chatbots are integrated to aid user experience.

**Tech Stack:** React.js, Node.js, Flask, MongoDB, Firebase, Langchain, Solidity, and Hyperledger Besu. [Prototype] **Acknowledgements:** Gold Award, International Blockchain Olympiad 2023 and 2nd, Bangladesh Blockchain Olympiad

[ 2023 - 2023 ]

**NurtureAid** This mobile app enhances caregiving through a tailored dashboard, real-time tracking of appointments and activities, alerts for potential dangers, and seamless report sharing via cloud storage. It also facilitates instant communication among family members through family circles.

**Tech Stack:** React Native, Node.js, Flask, MongoDB, Firebase, LLaMA-Index, and PyTorch [Github]

**Acknowledgements:** Champion of the Software Engineering Lab project, Department of CSE-UIU, Champion of the Hult Prize OnCampus round at UIU, Selected for the Hult Prize Summit in Boston.

[2021 - 2021]

**ECMS Desktop** This desktop application streamlines the management of co-curricular activities at United International University, catering to students, clubs, forums, and administrators. It features real-time database integration and supports both text and image messaging.

**Tech Stack:** Java, JavaFX, MySQL; [Github]

**Acknowledgements:** Awarded Champion at the UIU CSE Project Show for the Advanced Object-Oriented Programming Laboratory.

[ 2022 - 2022 ]

**Sujog** Sujog connects young people globally with diverse opportunities and educational resources, aiming to foster skill development and success. The platform promotes equal access to information, ensuring that geographic location does not hinder personal and professional growth.

Tech Stack: HTML, CSS, JS, PHP, MySQL [Github]

**Acknowledgements:** Runner-up Champion at the UIU CSE Project Show, Database Management Systems Laboratory

#### **PUBLICATIONS**

[2022]

#### An audio-video based multi-modal fusion approach

- Supervised by Md. Rayhan Ahmed Ph.D. Student, University of British Columbia
- **Description:** We present an approach to classify human emotions by fusing audio and visual inputs. Our approach sets new state-of-the-art results while keeping the architecture very simple. Additionally, we present a new frame filtering strategy to overcome the problem of spatiotemporal redundancy.

[2024]

# **AVLoS: Audio-Visual Long Text Scene Summarization**

- Supervised by Dr. Swakkhar Shatabda, Professor, Department of CSE, UIU
- Research in progress
- **Description**: This research introduces a method for creating long-text summaries from multi-modal inputs by integrating deep learning models trained on <u>video and audio datasets</u>.

[2024]

## BhaShammo: IPA Transcription of Bengali Regional Dialects Using District Guided Tokens

- Co-supervised by <u>Dr. Swakkhar Shatabda</u>, Professor, Department of CSE, UIU, and <u>Dr. Farig Yousuf Sadeque</u>, Associate Professor, Department of CSE, Brac University
- **Description:** This <u>paper</u> introduces a method to improve IPA transcription of Bengali regional dialects by applying District Guided Tokens (DGT) to a new dataset, Vashantor, covering six districts in Bangladesh. The approach involves providing the model with regional dialect information to enhance transcription accuracy.

#### **VOLUNTEERING**

[ 1 Apr 2024 – 1 Jul 2024 ] UIU Computer Club

**Vice President** 

[ Jun 2023 - 31 Mar 2024 ] UIU Computer Club

**Head of Public Relations** 

[ Jun 2022 – Jun 2023 ] UIU Computer Club

**Head of Human Resource** 

[ May 2021 – 19 May 2022 ] UIU Entrepreneur Development Forum

**Head of Human Resource** 

## **RECOMMENDATIONS**

Name: Dipl. Ing. Mohammad Jamil Hossain | Senior Field Application Enigeer

ETAS GmbH (Bosch Group)

**Email:** hossainmhdjamil@yahoo.com | **Phone number:** (+49) 17623253596

Name: Dr. Swakkhar Shatabda | Professor, Dept. of CSE

Director, B.Sc. in Data Science, UIU

Email: <a href="mailto:swakkhar@cse.uiu.ac.bd">swakkhar@cse.uiu.ac.bd</a> | Phone number: (+880) 1776195310