# MEHADI HASAN

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#### RESEARCH INTEREST

My research interests include blockchain technology, machine learning, software development, robotics, and IOT, with a focus on interdisciplinary approaches to address complex real-world challenges.

## **EDUCATION**

Bachelor of Science in Computer Science & Engineering

January 2020 - July 2025

Shahjalal University of Science & Technology

Sylhet, Bangladesh

CGPA: 3.74 out of 4.0

Higher Secondary Certificate (12th Grade)

August 2016 - April 2018

BAF Shaheen College Shamshernagar

Moulvibazar, Bangladesh

GPA: 4.83 out of 5.0

### **PUBLICATIONS**

1. **Mehadi Hasan**, Ovi Talukder, Raisul Karim Saju and Md Lysuzzaman. KYC-Driven Cryptocurrency Wallet: A Solution To Regulatory Compliance. Accepted in 2024 27th International Conference on Computer and Information Technology (ICCIT), Cox's Bazar, Bangladesh. [Paper].

- 2. Ruhul Amin, **Mehadi Hasan**, Ovi Talukder, Shayla Shobnom Ankhi, Ashraful Islam, Md Forhad Rabbi. B-Dropshipper: Interoperable Federal Blockchain Approaches For Real Estate Dropshipping. Accepted in 2023 26th International Conference on Computer and Information Technology (ICCIT), Cox's Bazar, Bangladesh. [Paper].
- 3. Sudipto Kar, Ragib Mohammad, Meem Tasfia Zaman, Sayed Maher Reza, Ovi Talukder, **Mehadi Hasan**. Farmbot: an IoT-Based Wireless Agricultural Robot for Smart Cultivation. Accepted in 2023 26th International Conference on Computer and Information Technology (ICCIT), Cox's Bazar, Bangladesh. [Paper].

## **EXPERIENCE**

Research Assistant

Jan 2024 - Feb 2025

Sylhet Engineering College

Sylhet, Bangladesh

Advisor: Md Lysuzzaman, Lecturer, Department of CSE, Sylhet Engineering College

Conducted research on blockchain technology and cryptography while preparing technical reports and presentations. Collaborated with interdisciplinary research teams on machine learning projects.

# TECHNICAL SKILLS

Languages

: Python, C/C++, Swift, Java, Kotlin, Latex

Software Development

: iOS(Swift/SwiftUI, Xcode), Android(Java/Kotlin, Android Studio)

Machine Learning

: NumPy, Pandas, Matplotlib, OpenCV, NLTK, Scikit-Learn, Seaborn, Pytorch

Operating System : Windows, Linux, MacOS

### **PROJECTS**

• IELTSpeak [Code]

June 2024 - Present

IELTSpeak is an iOS app that helps users prepare for the IELTS Speaking test by simulating mock interviews with real-time voice interaction. The app records responses, evaluates them using AI, and provides detailed feedback on fluency, pronunciation, grammar, vocabulary, and topic relevance. Building it with SwiftUI/SwiftUI for its user interface, Supabase for its backend, and an LLM model for evaluating and providing feedback.

# • UnChair [App Store] [Code]

April 2024 - June 2025

UnChair, an iOS app, addresses modern sedentary lifestyles by promoting physical activity through reminders, challenges, and exercises to improve posture and overall health. Developed with Swift and SwiftUI, and Firebase for the backend.

• Petopia [Code]

January 2024 – March 2024

This Android app improves pet care while encouraging a vibrant community of pet enthusiasts. Built with MVC and OOP principles, it uses native frameworks like Java, Kotlin, and XML for a smooth user experience. It integrates a MySQL database with REST APIs via Retrofit and PHP for efficient API development.

## • ZOO-Simulator [Code]

August 2023 - December 2023

ZOO Simulator is a Java console application project which focuses on OOD and Design Patterns. It progressively added complex features and diagrams while implementing patterns like Observer, Singleton, Strategy, Factory, Decorator, and Command. The project also included JUnit testing and data visualization, showcasing advanced Java programming and software design.

#### COURSES & CERTIFICATES

• Advanced Learning Algorithms [Link]
DeepLearning.AI, Stanford University — Coursera

October 2024

• Supervised Machine Learning: Regression and Classification [Link] DeepLearning.AI, Stanford University — Coursera

September 2024

• Python for Data Science, AI & Development [Link] IBM — Coursera

September 2024

## OTHER ACTIVITIES

## • Inter University Programming Contest - Sylhet Division

November 2024

Metropolitan University

Sylhet, Bangladesh

Team Name: SEC\_ZYX — Position: 14th [Results]

Competed in a competitive programming contest alongside university teams across Sylhet division.

#### • Bitfest Hackathon

March 2022

Leading University

Sylhet, Bangladesh

Participated in a competitive hackathon to develop innovative solutions for a School Management System, collaborating with team members to build prototype solutions within time constraints.

## • Intra University Hackathon

August 2022

Sylhet Engineering College

Sylhet, Bangladesh

Participated in an Intra University Hackathon, collaborating with team members to build a Library Management System within time constraints and a competitive environment.