

# JAHIR SADIK MONON

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## EDUCATION

<b>University of Dhaka</b> <i>B.Sc. (Hons) in Computer Science and Engineering</i> CGPA: 3.93/4.00   Rank - 1 <sup>st</sup> /63   Advisor: Dr. Md Mosaddek Khan Thesis: <i>Learning to Cooperate Among Heterogeneous Agents in Sparse Reward Environments</i> <sup>1</sup>	Dhaka, Bangladesh 2019 - 2023
<b>Dhaka College</b> Higher Secondary School Certificate   GPA: 5.00/5.00	Dhaka, Bangladesh 2016-2018
<b>Government Laboratory High School, Dhaka</b> Secondary School Certificate   GPA - 5.00/5.00	Dhaka, Bangladesh 2008-2016

## EXPERIENCES

<b>Center for Computational &amp; Data Sciences, IUB   CCDS</b> <i>Research Assistant</i>	2024 - present Dhaka, Bangladesh
<ul style="list-style-type: none"><li>• Involvement in research projects on Reinforcement Learning, Multi-modal learning, Natural Language Processing. Reviewed, and presented recent papers on the respective domain.</li><li>• Tutored undergraduate students in the CIS-101 courses, covering Introduction to Python programming language, Application development using Microsoft PowerApps, Introduction to Artificial Intelligence, Prompt Engineering, and other technologies</li><li>• Advisors: Dr. Amin Ahsan Ali and Dr. AKM Mahbubur Rahman</li></ul>	

## ACHIEVEMENTS

DataVerse Challenge - ITVerse 2023   Finalists	2023
Robi bdapps Ideathon, Dhaka University   2nd Runner-up	2023
Hult Prize Impact Summits   Campus Champion & Regional Finalists	2021
Bangladesh Mathematical Olympiad Regional   Runner-up (Junior)	2013
Bangladesh Mathematical Olympiad Regional   Champion (Junior)	2012

## COURSES & CERTIFICATES

Fundamentals of Reinforcement Learning   Coursera	2022-23
Introduction to Reinforcement Learning by David Silver 2015   Youtube	2022-23
Deep Learning Specialization   Coursera	2022-23
Intro to Machine Learning   Kaggle	2022
Intermediate Machine Learning   Kaggle	2022
Python for Everybody 4 Course Specialization   Coursera	2020

## PROGRAMMING PROJECTS

<b>DUStudyLink</b>   Backend Developer & Database Management   repo	2023
My responsibilities in the development of this Web application included database schema design, coding data-model classes, and integration with Firebase Firestore.	
<b>Salvare</b>   Backend Developer & Database Management   repo	2021
During the development of this Android application, my responsibility was to use the Flutter framework and the Dart programming language to create the user interface, data model classes, control user navigations, and local database handling using SQL. This application can be used for storing online	

<sup>1</sup>Under review in IJCAI 2024

resources with various categorizing, searching, and filtering features.

**Apellai** | Backend Developer & Database Management | [repo](#) 2021

It is a mobile music streaming application. My responsibility in development was to handle the API calls from streaming services, design the database schema in PostgreSQL, and code the backend functions using the Kotlin language in Android Studio.

**!Typo** | Backend & Frontend Developer | [repo](#) 2019

A Windows-based journal application entirely written in the C programming language. I used the SDL library for Graphical User Interface.

Other projects on application development, machine learning, etc., can be found on my [github](#).

## TECHNICAL SKILLS

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<b>Programming Languages</b>	Python, C, C++, Java, Dart, Kotlin, SQL, Assembly, HTML
<b>Software &amp; Tools</b>	LaTeX, Git, Flutter, Android Studio, MySQL, PostgreSQL, RegEx
<b>Python Packages</b>	Pandas, Matplotlib, Numpy, Jupyter, PyTorch, Scikit-Learn BeautifulSoup, Selenium, Seaborn, Requests, Urllib

## RESEARCH INTEREST

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### Reinforcement Learning

My primary research interest is in Reinforcement learning. More specifically, cooperative/competitive multi-agent reinforcement learning (MARL). I am deeply interested in extending my undergraduate thesis work and learning about the applications of MARL in multi-robot tasks. I am also interested in learning about inverse reinforcement learning, transfer learning, etc.

### Multi-Modal Learning

I'm intrigued by the recent advances in Multi-Modal Learning research, due to its potential to transform system understanding and decision-making. I see it as a key area in the next AI revolution.

### Natural Language Processing

Despite my limited exposure to this research field, I am deeply fascinated by recent developments in Large Language Models and their capabilities. My interest was particularly piqued while studying several papers on AI Explainability. I am also eager to explore the field's applicability in reducing the spread of social-media misinformation and in information verification.

## OTHERS

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### Experience

- Writing Higher Secondary ICT book summary and tips | [iPublications](#) 2020
- Dhaka regional school football | Regional Champion 2016
- Executive member at Science Club of The Laboratorians 2013-16

### Languages

Bangla | English

## REFERENCE

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**Dr. Md. Mosaddek Khan** | [University Website](#) | [Personal Website](#)

Associate Professor,

Department of Computer Science and Engineering, University of Dhaka

**Amin Ahsan Ali, PhD** | [University Website](#) | [CCDS Website](#)

Associate Professor,

Department of Computer Science and Engineering, Independent University, Bangladesh