JAHIR SADIK MONON

GitHub ◇ LinkedIn ◇ Academic Site ◇ Mail

EDUCATION

University of Dhaka Dhaka, Bangladesh
B.Sc. (Hons) in Computer Science and Engineering *2019 - 2023*
CGPA: 3.93/4.00 | Rank - 1st/63 | Advisor: Dr. Md Mosaddek Khan
Thesis: *Learning to Cooperate Among Heterogeneous Agents in Sparse Reward Environments*[1]

Dhaka College Dhaka, Bangladesh
Higher Secondary School Certificate | GPA: 5.00/5.00 *2016-2018*

Government Laboratory High School, Dhaka Dhaka, Bangladesh
Secondary School Certificate | GPA - 5.00/5.00 *2008-2016*

EXPERIENCES

Center for Computational & Data Sciences, IUB | CCDS *2024 - present*
Research Assistant Dhaka, Bangladesh

- Involvement in research projects on Reinforcement Learning, Multi-modal learning, and Natural Language Processing. Reviewed, and presented recent papers on the respective domains
- Tutored undergraduate students in the CIS-101 courses, covered Introduction to Python programming language, Application development using Microsoft PowerApps, Introduction to Artificial Intelligence, Prompt Engineering, and other technologies
- Advisors: Dr. Amin Ahsan Ali and Dr. AKM Mahbubur Rahman

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

DUStudyLink | 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.

Salvare | 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

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[1] Under review in IJCAI 2024

resources with various categorizing, searching, and filtering features.

Apellai | Backend Developer & Database Management | repo _2021_

It is an online music streaming application for android phones. 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

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

RESEARCH INTEREST

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, learning from demonstrations, 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

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

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