

# Saaduddin Mahmud

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## Education

### B.Sc. in Computer Science and Engineering

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING, UNIVERSITY OF DHAKA

Dhaka, Bangladesh

January 2016 - April 2020

- **Expected CGPA:** 3.85/4.00 (7 out of 8 semesters)
- Related Coursework: Curriculum of Undergraduate Program

## Publications

1. Saaduddin Mahmud, Md. Mosaddek Khan, Moumita Choudhury, Long Tran-Thanh, and Nicholas R. Jennings. Learning optimal temperature region for solving mixed integer functional dcops. In *Proceedings of the 29th International Joint Conference on Artificial Intelligence, 2020*
2. Saaduddin Mahmud, Moumita Choudhury, Md. Mosaddek Khan, Long Tran-Thanh, and Nicholas R. Jennings. Aed: An anytime evolutionary dcop algorithm. In *Proceedings of the 19th International Conference on Autonomous Agents and Multi-Agent Systems, 2020*
3. Moumita Choudhury, Saaduddin Mahmud, and Md. Mosaddek Khan. A particle swarm based algorithm for functional distributed constraint optimization problems. In *Proceedings of the Thirty-Fourth AAAI Conference on Artificial Intelligence, 2020*
4. Saaduddin Mahmud and Moumita Choudhury (Equal Contribution). *Applying Population-Based Algorithms to Solve Large (F)DCOPs*. Department of Computer Science and Engineering, University Of Dhaka, 2020

## Experience

### Cognitive Agents & Interaction Lab, University of Dhaka

RESEARCH ASSISTANT

2020-Present

- Studying game-theoretic concepts to protect wildlife.
- Studying game-theoretic concepts to improve security resource allocation.
- Mentoring undergraduate students associated with the lab on final year research project.

### UpWork

WEB DEVELOPMENT, GAME DEVELOPMENT

2016-2018

- Worked on building portfolio websites.
- Worked as a back-end programmer for game development projects.

## Honors & Awards

- 2016 **1st in junior deviation**, Battle of Brains - 2016, University Dhaka
- 2017 **1st Runner up**, Battle of Brains - 2017, University Dhaka
- 2017 **1st Runner up**, BAPS-BUBT Programming Camp
- 2017 **5th position**, City University IUPC
- 2017 **Participated**, ACM ICPC Dhaka Regional
- 2018 **Top 20%**, Bengali Handwritten Digit Recognition- Kaggle

## Other Experiences

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### Medium.com

TECHNICAL BLOG WRITING ON ALGORITHMS AND TECHNOLOGY

2019-present

- Parallel Programming With CUDA Tutorial

### Online problem solving platforms

PROBLEM SOLVING

2015-present

- Solved over one thousand problems on various OJs.

## Skills

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**Languages** Python, Java, C/C++, Ruby

**Web** PHP, JavaScript, Django, Flask, Ruby on Rails

**Databases** MySQL, Oracle, MongoDB

**Library** PyTorch, TensorFlow, OpenAI Gym

**Hardware Level:** MIPS, NASM Assembler, Nvidia CUDA, R-PI

## Projects

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### EasyML (See project)

A PYTHON BASED WEB APP FOR AUTOMATED DATA VISUALIZATION AND CLASSIFICATION.

2017

- A python based web app for automated data visualization and classification.
- Fast hyper-parameter optimization.

### MuSync (See project)

AN ANDROID APP FOR MUSIC SYNCHRONIZATION

2017

- Music synchronization across different mobiles.
- Social-network for sharing music.

### AL.GO (See project)

ALGORITHM VISUALIZER

2018

- A java based demo project to visualize well known algorithms.
- Contains step by step visualization, codes, problem links on specific topic to help students learn faster.

### VocLab (See project)

A PYTHON BASED WEB APP FOR GRE PREPARATION ENHANCED BY MACHINE LEARNING

2019

- Personalized profile for GRE preparation.
- Smart and effective vocabulary Learning with the help of ML.

## Reference

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### DR. MD. MOSADDEK KHAN

- Assistant Professor, Department of Computer Science and Engineering  
University of Dhaka  
[mosaddek@du.ac.bd](mailto:mosaddek@du.ac.bd)