

# MASHRUR RASHIK

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## EDUCATION

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### University of Dhaka, Dhaka

2016 - Present

Bachelors in Science

Department of Computer Science and Engineering

Thesis: Exploring Ways to Scale-up Exact Inference Based DCOP Algorithms in Multi-Agent Systems

Advisor: Dr. Md. Mamun-or-Rashid, Dr. Md. Mosaddek Khan

Current CGPA: 3.91/4.0 (7/8 Semesters)

### Notre Dame College, Dhaka

2013 - 2015

Higher Secondary Education

GPA: 5.0/5.0

### Rajuk Uttara Model College, Dhaka

2013

Secondary Education

GPA: 5.0/5.0

## PROJECTS

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### Xupri.com, An E-commerce Search Engine

[[Website Link](#)]

- **Description:** An e-commerce website consisting of products from different fashion brands. A user can compare the products to make the best choice among similar products through comparison. Besides, a complete delivery system has been implemented.

### CS\_Simulate, A Web Based Algorithm Simulator

- **Description:** A web-based algorithm simulator developed by me along with my two other team members. Includes simulation of machine learning algorithms like K Means Clustering, Linear Regression, Logistic Regression, algorithms from linear algebra like Eigen Value Decomposition, Gaussian Elimination, Gauss Jordan Elimination, algorithms from database management like Static Hashing, Dynamic Hashing and different Iterative Dynamic Programming algorithms.

### Athletio, An Android Based Fitness Application

[[GitHub](#)]

- **Description:** Athletio is a fitness application for android devices. It can be used for workout tracking of different types. Besides it also includes the google map feature for finding a nearby place. It includes a chatbot for providing medical tips, which is an AIML bot. There is also social media for sharing photos and updating workout status. The social media includes its very own messenger. Includes VR to provide users a different environment during workouts.

### CS\_Classroom, A Web Based Classroom Management Application

[[Website Link](#)]

- **Description:** A fully functional classroom management application. Includes features like creating a class with unique class code and enrolling students. It contains a forum for students to post articles and an online IDE for Computer Science students to be able to code and at the same time, execute their code online.

## Shorai, Hotel Booking and Management Application

*[Website Link]*

- **Description:** A web application for hotel search. Includes fully functional hotel management.

## Search Engine, Desktop Application

- **Description:** Java-based desktop application, which can do both text and image search. Used text matching for any queries and image name matching in case of image search. Users are also able to search over popular search engines like, google, yahoo, duckduckgo.

## Zombie Crush, Desktop Game

*[GitHub]*

- **Description:** A desktop game developed using cpp and SFML graphics library.

## TECHNICAL STRENGTHS

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Machine Learning Libraries	Scikit Learn
Programming Languages	C/C++(Most preferred), JAVA, Python
Mobile Application Development	Android
Database	MySQL, Oracle SQL, MongoDB, Firestore
Cloud Platform	Google Firebase
Web Programming	JavaScript, Python(Flask)
Development	Software Design Pattern, Git

## PROBLEM SOLVING

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Reached Max. rating of 1630 (Expert) in Codeforces [Handle: ricky\_shen]

Solved over 1206 problems on different Online Judge:

- Codeforces Handle: ricky\_shen
- UVA Handle: Zero\_639
- LightOj Handle: mashrur rashik
- Spoj Handle: zero\_639
- TimusOj Handle: Mashrur Rashik
- Vjudge Handle: Hello\_world123, mashrur29, DU\_Damacy, DU\_Infinity, Paranoid\_android
- Codechef Handle: zero\_639

## MOOC COURSES

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Machine Learning on Coursera. [Certificate]

Fundamentals of Reinforcement Learning on Coursera. [Certificate]

## ACHIEVEMENTS

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**Code Samurai Inter-University Hackathon**

2019

*Champion [Standings]*

- Team: DU\_XUPRI

## Student to Startup, Chapter 2

2019

*Winners*

- Team: Xupri.com

## DUITS IT Festival

2018

*Runners-up*

- Category: IT Project Showcasing

## Banglalion-SUB Inter University Programming Contest

2018

*36th Position [Standings]*

- Team: DU\_Katamari\_Damacy

## City University Inter University Programming Contest

2017

*5th Position [Standings]*

- Team: DU\_Inferno

## RESEARCH AND PUBLICATIONS

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**Title:** Speeding Up Distributed Pseudo-tree Optimization Procedure with Cross Edge Consistency to Solve DCOPs

**Authors:** Mashrur Rashik, Md. Musfiqur Rahman, Md. Mamun-or-Rashid, Md. Mosaddek Khan, Long Tran-Thanh, Nicholas R. Jennings

**Title:** Improving Solution Quality of Bounded Max-Sum Algorithm to Solve DCOPs involving Hard and Soft Constraints

**Authors:** Md. Musfiqur Rahman, Mashrur Rashik, Md. Mamun-or-Rashid, Md. Mosaddek Khan

**Title:** Athletio: Data Driven Fitness Application

**Authors:** Md. Tavar Alam, Mashrur Rashik, Kashob Kumar Roy, Md. Mofijul Islam

**Published in:** International Conference on Emerging Technologies in Data Mining and Information Security, 2018, Kolkata, India

## GRANTS

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### Bangabandhu Innovation Grant

2019

The BIG grant, worth BDT 1 million, was awarded to the top 10 startup ideas in Student to Startup, Chapter 2 from over 2000 teams.

## REFERENCE

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**Dr. Md. Mosaddek Khan**

Assistant Professor, Department of Computer Science and Engineering  
University of Dhaka