# Moaz Mahmud

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## EXPERIENCE

**REVE Systems**                                                                Feb. 2021-Present
*Junior Software Engineer*
- I am working in E-Governence Department of the company in Bangladesh development office
- Main responsibility is Back-end Engineer
- Currently I am working as a Java Back-end Engineer on Parliament Resource Planning (PRP) project for Bangladesh National Parliament.

## EDUCATION

**Bangladesh University of Engineering and Technology**                          CGPA: 3.56/4.0
*Bachelor of Science in Computer Science and Engineering*                    *Feb. 2016 – Feb. 2021*

**Higher Secondary School Certificate**                                          GPA: 5.0/5.0
*BAF Shaheen College, Jessore*                                                    *Aug. 2015*

**Secondary School Certificate**                                                 GPA: 5.0/5.0
*BAF Shaheen College, Jessore*                                                    *Apr. 2013*

## PROJECTS

**Tic Tac Toe** | *Python, PyGame, Minimax algorithm*                             July 2020
- Frontend game play is implemented in PyGame
- Build an AI to play Tic Tac Toe with Minimax algorithm in Python

**Park Your Car** | *Laravel, phpMyAdmin, Google Map API, HTML, CSS, JavaScript*   September 2019
- Web-based car parking sharing service implemented in a three members group
- Used Google map API for showing and searching for parking spaces
- Backend is managed in Laravel
- phpMyAdmin is used to manage database

**Online Judge** | *Java, Thread, JavaFX, Networking in Java*                     November 2017
- Online judge that can be used to arrange programming contests
- Used JavaFX as the front end
- Java in the back end to do all the network programming and program logics

**Mancala Player** | *C++, OOP, Minimax algorithm, Alpha-Beta pruning*            February 2019
- Mancala is two-player turn-based strategy board game
- Build an AI to play Mancala with Minimax algorithm and Alpha-Beta pruning
- OOP is used to manage game states

**Ray Tracer from Scratch** | *C++, OOP, OpenGL*                                  September 2019
- Implemented a ray tracer along with shading from scratch
- OOP is used to manage draw various shapes

## ONLINE JUDGE PROBLEM SOLVING

**LightOJ**  *@mz_mahmud*
- Solved 151 problems.
- My common work flow is learning an algorithm and solving the categories.

**Hacker Rank**  *@MzMahmud*
- Gold Level in C++,Python.
- Silver Level in C,Problem Solving.

**Project Euler**  *@MoazMahmud*
- Solved 67 problems.
- As a math enthusiest I like solving math problem with programming.

## Technical Skills

**Languages**: C/C++, Python, Java, C#, LATEX, SQL, Bash Script, HTML/CSS
**Competitive Programming** : Problem Solving, Algorithm, Data Structure
**Frameworks**: PyGame, Laravel
**Developer Tools**: Git, Visual Studio, VS Code, Jupyter Notebook, NetBeans, Eclipse

## Achievements

**Networking, Systems and Security** *7th NSysS 2020* Nov 2020
- Runner-up Student Poster Award for *A Heuristic for Maximum Greedy Consensus Tree Problem*
- With S. M. Raihanul Alam

**ACM ICPC Dhaka Regional Online Preliminary Contest** 2016-18
- 2016 - Team BUET RDX : Position 122 out of 1235
- 2017 - Team BUET NAIVE: Position 75 out of 1246
- 2018 - Team BUET NAIVE: Position 164 out of 1326

**National High School Programming Contest 2015 Khulna Regional (Senior)** April 2015
- 2nd position among 65

**Bangladesh National Math Olympiad** 2011-15
- National Round : 2nd runner Up (2015), 1st runner Up (2014)
- Divisional Round: Champion (2015), 2nd runner Up (2014), 1st runner Up (2013), Champion (2011)

## Volunteer Experience

**Academic Team Member** 2015-Present
*Bangladesh National Math Olympiad*
- Conducted more than 12 regional Olympiads, 4 national Olympiads
- Organized many question camps and math camps
- Problem setter for various regional math olympiads

**Online Education** July 2020-Present
*moazmahmud.com*
- Uploaded more than 70 lecture videos of around 1 hour each on Math and Physics
- Videos have more than 450 hours of watch time

**Mathematics Coach** 2017-18
*Student Empowerment Program,Volunteers Association for Bangladesh*
- Conducted math camps on Nilphamari, Satkhira and Shariatpur

## Undergrad Thesis

**A Heuristic for Maximum Greedy Consensus Tree Problem** 2019-Present
- A study to find an approximation algorithm for the NP-hard problem Maximum Greedy Consensus Tree Problem
- The problem has applications in Bioinformatics
- Under supervision of Dr. Md. Saidur Rahman