# Moaz Mahmud

(+88) 01922-900-262 | moaz.mahmud.64@gmail.com | moazmahmud.com | github.com/MzMahmud

#### EXPERIENCE

REVE Systems Feb. 2021-Present

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 Bond Automation Project for Bangladesh National Board of Revenue(NBR).
- I have also worked as a Java Back-end Engineer on Parliament Resource Planning (PRP) project for Bangladesh National Parliament.

#### EDUCATION

## Bangladesh University of Engineering and Technology

Bachelor of Science in Computer Science and Engineering

## **Higher Secondary School Certificate**

BAF Shaheen College, Jessore

# Secondary School Certificate

BAF Shaheen College, Jessore

CGPA: 3.56/4.0

Feb. 2016 - Feb. 2021

GPA: 5.0/5.0

Aug. 2015

GPA: 5.0/5.0 Apr. 2013

## TECHNICAL SKILLS

Languages: C/C++, Javascript, Python, Java, C#, LATEX, SQL, Bash Script, HTML/CSS

Competitive Programming: Problem Solving, Algorithm, Data Structure

Frameworks: Bootstrap, PyGame, Laravel

Developer Tools: Git, Visual Studio, VS Code, Jupyter Notebook, NetBeans, Eclipse

#### Projects

#### Fill 2D Space with Hilbert Curve | p5js, JavaScript, ES6 | View Project | View Source

August 2021

- Hilbert Curve is a space-filling curve. That means this 1-D line can fill a 2-D space! This fact on its own is amazing! The mathematical and algorithmic knowledge inspired me to make something cool with it!
- In this project, the user can see the Hilbert Curve of various generations fill a 512x512 canvas.
- The hue mapping leads to a fascinating image of filled space. Uses can also upload their own image to be filled by Hilbert Curve which creates a mesmerizing atristic filter!

#### Bangladeshi Number Format Util | Python, Java, Java Stream, JavaScript, ES6 | View Source

July 2021

- This is a project to convert any Bangla or English number string into Bangladeshi number format which is the Crore-Lakh system.
- Given a number string, getFormattedNumber would return another string that is thousand and hudred seperated by comma. Given a number string, convertToWord returns another string which is the number in word.

## Tic Tac Toe | Python, PyGame, Minimax algorithm | <u>View Source</u>

July 2020

- Frontend game play is implemented in PyGame
- Build an AI to play Tic Tac Toe with Minimax algorithm in Python

#### Ray Tracer from Scratch | C++, OOP, $OpenGL \mid View Source$

September 2019

- Implemented a ray tracer along with shading from scratch
- OOP is used to manage draw various shapes

#### Park Your Car | Laravel, phpMyAdmin, Google Map API, HTML, CSS, JavaScript

September 2019

- $\bullet$  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
- phpMvAdmin is used to manage database

# 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.

#### 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/youtube.html

- 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