Adiba Sumaiya Khan

Date of birth: 14/09/1994 | **Nationality:** Bangladeshi | **Gender:** Female |

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https://www.linkedin.com/in/adiba-sumaiya-khan-71475092/ |

https://www.researchgate.net/profile/Adiba_Sumaiya_Khan |

https://github.com/adibakhan-14 | https://leetcode.com/Adiba_94/ |

https://test.trukiot.com |

House- 34, Victoria Street, Road-1 , Block-A, Bashundhara R/A, 1229, Dhaka, Bangladesh

About me: A tech enthusiast, who likes to apply her knowledge and skill wherever it is required. Eager to learn and loves to explore

WORK EXPERIENCE

2022 – CURRENT – Ruston, Louisiana, United States
GRADUATE RESEARCH ASSISTANT – LOUISIANA TECH UNIVERSITY

To develop a simulation environment in C++ and OpenMPI to better understand the behaviour of metals in atomistic level.

01/07/2020 – 31/08/2022 – Dhaka, Bangladesh
ASSISTANT SOFTWARE ENGINEER – ERA-INFOTECH LTD.

- Responsible for participating in the front end development of a website application in angular 9.
- Responsible for solution design: Collaborate with internal and external customers by providing customer use case analysis, business model analysis, engineering and design of technical solutions, technical presentations, and technical consultation to internal and external customers.
- Building up and integrating within other existing projects. Implementation of IOT device with AWS IOT hub using AWS IoT MQTT.
- Act as a technical liaison between customers, service engineering teams, and support.

30/06/2019 – 29/06/2020 – Dhaka, Bangladesh
TRAINEE SOFTWARE ENGINEER – ERA-INFOTECH LTD.

- Assist in the evaluation of new solutions for integration into the IoT Roadmap/Strategy
- Analyzed market need and came up with an excellent solution for cars and trucks
- Working knowledge on IoT Strategy, standards, protocols
- Hands-on experience with constrained devices such as Arduino, RaspberryPI and ARM

31/07/2018 – 30/03/2020 – Dhaka, Bangladesh
UNIVERSITY RESEARCH ASSISTANT – NORTH SOUTH UNIVERSITY

Research Assistant under the Supervision of Mr. Rashed Shelim (URL: http://ece.northsouth.edu/people/rashed-shelim/).
Research Areas- 5G Network Modeling, 5G User Mobility, Fronthaul, Resource Allocation, Game Theory, PID Control, Cloud Computing

DIGITAL SKILLS

My Digital Skills

VSCode │ MATLABSimulink │ Basic AutoCad │ Multisim │ OpenMPI │ C# (Asp.NET MVC)

Programming Languages

MATLAB │ AWS IOT │ ECMAscript15 │ Web Development: HTML 5, CSS, JavaScript │ C │ C++ │ NodeJS, ExpressJS, ReactJS │ AWS Web Services │ Javascript ES6 / Typescript │ Python │ C#

Libraries and Framework

angular 9 │ dynamoDB │ Git │ Node.js │ pandas │ SQL (MySQL)

EDUCATION AND TRAINING

2022 – CURRENT – 201 Mayfield Ave, Ruston, LA 71272, United States, Ruston, United States
DOCTOR OF PHILOSOPHY IN COMPUTATIONAL ANALYSIS AND MODELING – Lousiana Tech University

01/02/2014 – 09/01/2019 – Plot- 15, Block-B, Bashundhara R/A, Dhaka, Bangladesh
BACHELORS OF ELECTRICAL AND ELECTRONICS ENGINEERING – North South University

3.23 out of 4 │ http://www.northsouth.edu/

31/05/2013 – 29/06/2013 – British Council, 5 Fuller Road, Dhaka 1000, Dhaka, Bangladesh
A LEVELS – British Council

https://www.britishcouncil.org.bd/en

31/05/2010 – 29/06/2010 – Plot 2, Road 8 & 9, Sector-1 , Uttara, Dhaka , Bangladesh
O LEVELS – Scholastica

http://www.scholasticabd.com/

PROJECTS

e-Recruitment

- Worked on REST API using NodeJS (Express) and sequelize ORM with MySQL.
- Setup and managed windows servers on amazon using EC2, ELB, SSL, Security groups and IAM
- Managed CDN on Amazon Cloud Front to improve site performance.

30/06/2019 – 01/02/2020
Fleet management

https://trukiot.com/
- Involved in front-end development in Angular
- Implemented REST API using AWS API Gateway, AWS Lambda with NodeJS with DynamoDB.
- Automated deployment for dev, test, staging, and production using Serverless framework, Bitbucket Pipeline.
- Hosted front-end code to S3 web hosting and route53

User Management System

- ◦ User Management System for all the projects of our Company. Complete stack for this project was C#, ASP.NET, MVC Pattern Entity Framework, Angular Material, Typescript, Web API, SQL Database and Angular 9.

LANGUAGE SKILLS

Mother tongue(s): **BENGALI**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	B2	B2	C1	C1	B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

PUBLICATIONS

A Novel Approach to Mitigate the Intensity Underestimation Problem Of Classical MHCPP in 5G Small Cell Networks

DOI: 10.1109/iEECON48109.2020.229580
https://ieeexplore.ieee.org/document/9077414 – 2020
In this paper, we propose a novel model called Displaced Offspring Hard Core Point Process (DO-HCPP) by applying displacement theorem to shift the discs through a predefined angle in an iterative manner to obtain the maximum achievable intensity in a given region. Simulation results show that the intensity is much higher for our proposed model compared to traditional MHCPP.
https://www.researchgate.net/publication/ 340162560_A_Novel_Approach_to_Mitigate_the_Intensity_Underestimation_Problem_Of_Classical_MHCPP_i n_5G_Small_Cell_Networks

Safe Sailing: GSM and GPS Controlled Autonomous Boat with Overweight Detection and Obstacle Avoidance

DOI: 10.11591/ijeecs.v14.i2.pp715-724
http://ijeecs.iaescore.com/index.php/IJEECS/article/view/16842 – 2019
This paper aims to save thousands of lives by proposing a novel technique of ensuring the complete safety of medium-sized aquatic vehicles using innovative ideas as well as augmented adaptations of myriad existing technologies.
http://ijeecs.iaescore.com/index.php/IJEECS/article/view/16842

VOLUNTEERING

14/08/2015 – 14/08/2015
Volunteer in Universal Children's Day

Jaago Foundation
Celebrated a day with underprivileged kids at Gulshan Youth Club. Fundraised money for their schooling and participated in different fun activities the whole day.

REFERENCES

Rashed Shelim

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Email: rashed.shelim@northsouth.edu
Phone: +88 02 55668200 Ext – 6192

Saad Azmeen-Ur-Rahman

Senior Lecturer
Email: azmeen.rahman@northsouth.edu
Phone: +88 02 55668200 Ext – 1541