

Ekhfa Hossain



Dhaka, Bangladesh



ekhfahossain@gmail.com



<https://ekhfa.vercel.app/>

Education

BS in Computer Science & Engineering

North South University

Honor: *Magna Cum Laude* (CGPA: 3.72/4.00)

Summer 2017 – Summer 2021

Dhaka, Bangladesh

Work Experience

Trainee Software Engineer

Sazim Tech Ltd

October 2023 – Present

Dhaka, Bangladesh

- Develop projects tailored to specified requirements, ensuring alignment with goals and objectives.
- Implement project features precisely per instructions, fostering seamless collaboration with design and product teams.
- Optimize projects for scalability, employing robust architecture and practices to accommodate future growth.
- Tech Stack: ReactJs, NextJS, TypeScript, SQL, PostgreSQL, ExpressJS, NodeJS.

Teaching Assistant

Department of Electrical and Computer Engineering

North South University

August 2021 – January 2022

Dhaka, Bangladesh

- Assisted faculty members with course-related tasks, demonstrating a solid understanding of the subject matter.
- Managed a total of 200 students: Two sections for MAT116 (Pre-Calculus) and Three sections for MAT120 (Calculus-I), each with 40 students.
- Proctored exams and quizzes, evaluated exam papers and quizzes, and provided constructive feedback on assignments.
- Collaborated with faculty to enhance the effectiveness of course materials and support the learning objectives.

Research Experience

Directed Research

Department of Electrical and Computer Engineering

North South University

February 2021 – November 2021

Dhaka, Bangladesh

- Performed sentiment analysis using traditional machine-learning techniques on Bangla Facebook posts.
- Created a meticulously annotated dataset of eleven thousand Bangla comments and corresponding reactions, with rigorous quality assurance using dual approach manual and statistical methods for annotation accuracy.
- Conducted insightful demographic analysis to identify patterns in individuals contributing to hate speech and cyberbullying on social media platforms.
- Supervised by Intisar Tahmid Naheen, Department of Electrical and Computer Engineering.

Publications

F. H. Shubho, F. Iftekhhar, **E. Hossain** and S. Siddique, "Real-time traffic monitoring and traffic offense detection using YOLOv4 and OpenCV DNN," TENCON 2021 - 2021 IEEE Region 10 Conference (TENCON), 2021, pp. 46-51
DOI: [10.1109/TENCON54134.2021.9707406](https://doi.org/10.1109/TENCON54134.2021.9707406)

S. A. Kaiser, S. Mandal, A. K. Abid, **E. Hossain**, F. B. Ali, and I. T. Naheen, "Social Media Opinion Mining Based on Bangla Public Post of Facebook," 2021 24th International Conference on Computer and Information Technology (ICCIT), 2021, pp. 1-6
DOI: [10.1109/ICCIT54785.2021.9689860](https://doi.org/10.1109/ICCIT54785.2021.9689860)

Skills

Programming Language	C, C++, Python, Java, JavaScript
Machine Learning	Google Colab, TensorFlow, Scikit-learn
Web Programming	JavaScript, HTML, CSS, Bootstrap, ReactJS, NodeJS, NextJS, ExpressJS
Database	MySQL, PostgreSQL, Firebase
Mobile Programming	Android
Version Control System	Git, GitHub
Documentation	LaTeX, Overleaf
Office Suite	Microsoft Word, Excel, PowerPoint

Honors and Awards

❖ Merit-based Scholarship from North South University (75% Tuition Waiver)	2017 – 2021
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Presentations

Real-time traffic monitoring and traffic offense detection using YOLOv4 and OpenCV DNN	2021
Poster presentation at North South University Capstone Design Project Day 2021	

Extracurriculars

NSU ACM W Student Chapter	2017 – 2020
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- Promoted diversity in tech through workshops and seminars, connecting female students with computing professionals for skill enhancement and networking.
- Conducted free classes in Full Stack Software Development, Machine learning, Blockchain, and Web Security for female students.
- Organized flagship event, "Inter-University Girls' Programming Contest (IUGPC 2019)," drawing participation from 80 teams across the nation and captivating nationwide interest among female contestants.

NSU Problem Solvers	2018 – 2020
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- Achieved a top 20 rank among 100+ peers, leading to selection for NSUPS Bootcamp training in competitive programming.
- Received training in diverse programming domains, including Number Theory, Binary Search, Dynamic Programming, Data Structure, and Graph Theory.
- Actively participated in weekly programming contests on different online judges, to refine programming skills and problem-solving abilities.

Others

The Daily Observer – "Food insecurity in BD" by Ekhfa H, Adiba A, Ania C, Sumaiya L and Farjana B, April 20, 2018.

Link: <https://www.observerbd.com/details.php?id=133565>