# Shudipta Majumder

**Software Engineer**

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## Education

**Daffodil International University(DIU)** — Dhaka, Bangladesh
*2018-2022*

- Bachelor of Science in Computer Science & Engineering
- **CGPA: 3.23 /4.00**
- **Key Courses:** DataStructures & Algorithms, Object Oriented Programming, Database, Operating Systems, AI, Software Engineering

## Skills

| Languages | Frontend | Backend | | Machine Learning (AI) | Server | Problem Solving | Soft Skills |
|---|---|---|---|---|---|---|---|
| Python | React | Django | FastAPI | NLP | Nginx | Solved 200+ Problems | Presentation |
| JavaScript | Next JS | Node.js | Express.js | RNN | AWS | URI (x200) | Project Management |
| C++ | Next Auth | PostgreSQL | MongoDB | LSTM | CI/CD | LeetCode (x41) | Attention to Detail |
| Golang | Type Script | GRPC | Web Socket | CNN | Docker | | Technical Writing |
| Bash | GSAP | RabbitMQ | GraphQL | Tensorflow | | | Time Management |
| | Redux | System Design | Redis | Transformer | | | |

## Professional Experiences

**WALTON Group, Bashundhara R/A, Dhaka, Bangladesh** — **Dec 2022 - Present (2.7+ Years)**

**Software Engineer (Full-Stack, Backend Focused)** — *Sep 2023 - Present*

- Developed Django REST APIs for a School Management System, improving backend performance and scalability, also Implemented Redis for caching and message queuing, send email and SMS sending efficiency. Integrated WebSocket using Django Channels to enable real-time communication in the system.
- Designed and optimized database queries to ensure fast and efficient data retrieval, Created asynchronous task processing using Celery for handling background tasks efficiently. Implemented real-time notifications for important events such as attendance updates, exam results , notice and announcements.
- Ensured API security and performance optimization using Django middleware and DRF best practices and Developed logging and monitoring solutions to track system performance, debug efficiently. Enhanced WebSocket performance with Redis for seamless real-time updates across multiple user interfaces.
- Configured Nginx for media file serving, ensuring efficient delivery of static and media content. Set up Nginx as a reverse proxy to optimize load balancing and improve application performance. Learning AWS cloud services to build scalable and secure infrastructure solutions. Applying skills in EC2, S3, Lambda, and IAM to deploy real-world cloud applications. My current Project is Bench Education

**Associate Software Engineer (Full-time)** — *Mar 2023 - Aug 2023*

- Designed and implemented component-based architecture for a School Management System using modern frontend frameworks. Developed a responsive menu, top bar, and sidebar with an intuitive UI/UX for seamless navigation. Ensured cross-browser compatibility and adherence to UI/UX best practices.
- Integrated RESTful APIs for real-time data retrieval and dynamic content updates. Built numerous reusable components and utility functions, improving development efficiency and maintainability. Also optimized frontend performance and responsiveness to ensure smooth functionality across devices.
- Implemented dark mode, light mode and system mode functionality for enhanced user experience and accessibility. Collaborated with backend developers to refine data structures, authentication, role-based access and user-based access. Contributed to key school management features, including student records, attendance tracking, payroll and staff management.

**Software Engineer Intern** — *Dec 2022 - Feb 2023*

- Collaborated with PM, UI-UX Team to contribute codes in a Walton Digitech Website with React and Next JS.
- Learned about project development lifecycle, development best practices & some Design for GSAP.
- Designed a multi-module school management system draft prototype consisting of several important features.

## Thesis

**A Predictive Model To Detect Online Cyber Bullying By Using Machine Learning.**

The ultimate goal is to create a tool that can assist social media companies, online communities, and educators in identifying and preventing harmful online behavior, fostering a safer and more positive digital environment.

## Personal Projects

**Real Time Messaging system**

This project creates a real-time messaging application using Node.js, raw WebSockets, and React. Node.js handles the backend WebSocket server to manage message exchanges between clients,

**Detect and Recognition object by using Machine Learning (CNN)**

This research project utilizes machine learning to automatically detect and recognize objects in real-time through given user classes data.

## References

**Md. Galib Ibn-Kibria**
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