

# Jagonmoy Dey

📍 Dhaka, Bangladesh    ✉ jagonmoydey1997@gmail.com    ☎ (+880) 193 288 07 27    🌐 jagonmoy.github.io  
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## Education

### BSc in Software Engineering

Shahjalal University of Science and Technology

CGPA: 3.6 / 4.0 (10th position)

Sylhet, Bangladesh

Jan 2018 – Feb 2023

- Achieved a 3.85 average GPA over the last four semesters, with a perfect 4.0 (1st place) in the 7th semester and 3.97 (2nd place) in the 8th.
- Courses: Software Requirement Engineering, Software Architecture and Design Patterns, Software Verification and Validation, Data structures, Algorithms, Linear and Abstract Algebra, Data Science, ML, AI.

## Research Experience

### Thesis: Speaker Diarization with Speech Recognition in Bengali

Shahjalal University of Science and Technology

Sylhet, Bangladesh

Sep 2022 – Feb 2023

- Developed a speaker diarization system using Bi-LSTM and Google Cloud Speech-to-Text for Bangla, incorporating voice activity detection, speaker segmentation, and clustering (k-means, Mean Shift).
- Created and annotated an 8-hour Bangla dataset from YouTube debates and talk shows using ELAN, Audacity, and y2Mate, referencing DIHARD II and CALLHOME.

## Work Experience

### Software Engineer

Cefalo Bangladesh Limited

Dhaka, Bangladesh

July 2024 – Present

- Worked from scratch in a Oslo-based start-up environment as a full-stack engineer to develop **Subrite**, a multi-tenant SaaS subscription management system, following Agile methodologies.
- Optimized web performance by implementing server-side fetching, cache revalidation, and Next/Image with imgix, improving SEO from 85% to 100% and overall page load performance from 55% to 95% (Google Lighthouse metrics).
- Architected email automation functions using Nest.js event queue system to handle both scheduled and event-driven tasks, serving over 200,000 users across Scandinavia.
- Designed and configured multi-tenant email provider settings, and created dynamic, responsive email templates using MJML for enhanced user engagement and flexibility.

### Associate Software Engineer

Cefalo Bangladesh Limited

Dhaka, Bangladesh

Feb 2023 – June 2024

- Integrated external tenant application with **Subrite** OIDC using NextAuth.
- Introduced and configured Playwright for end-to-end testing across the system, integrating it into the CI/CD pipeline for automated testing and quality assurance, and wrote unit tests using Jest to ensure code reliability and functionality.
- Implemented custom fields integration for a multi-tenant front-end, allowing tenant-specific configurations to be applied dynamically, built responsive UIs, and developed well-maintained, reusable components.
- Optimized backend RESTful API performance and fine-tuned TypeORM SQL queries, resulting in a 1.5x improvement in API response times and overall system efficiency.

## Teaching and Monitoring Experience

### Trainer for Junior Software Engineers and Interns

Cefalo Bangladesh Limited

Dhaka, Bangladesh

Sep 2023 – Present

- Trained junior engineers on the complete software development process, conducted Next.js workshops, reviewed code, and planned training programs.

## Competitive Programming Workshop Instructor

*Shahjalal University of Science and Technology*

Sylhet, Bangladesh

*Jan 2021 – Aug 2021*

- Conducted university workshops on competitive programming, teaching concepts related to various data structures and algorithms to improve problem-solving skills.

## Projects

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### **SlackBook** | *Javascript, Node.js, Slack API, Facebook Graph API*

- Developed a Slackbot, integrating Slack API and Facebook Graph API to automate message/attachment sharing between Slack and Facebook by various commands.

### **Number Theory** and **Graph Theory** | *C, C++*

- Created and maintained two GitHub repositories on Number Theory and Graph Theory, featuring tutorials, problems, and solutions for learning DSA. Each repository has received 20+ stars and is now used in the department to construct Competitive Programming and DSA courses.

## Technical Skills

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**Languages:** JavaScript/TypeScript, SQL, HTML/CSS, C/C++, Python

**Frameworks/Libraries:** React.js, Next.js, Nest.js, Express.js, Tailwind CSS, Playwright, Jest, PostgreSQL

**Developer Tools:** Git, Docker, Swagger, Postman, Google Colab, Jupyter Notebook

**Machine Learning Technologies:** NumPy, Pandas, TensorFlow, Scikit-learn

## Language Certification

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### **IELTS Academic**

- Overall Band Score: 7.5 (Listening: 8.5, Reading: 7.0, Writing: 6.5, Speaking: 7.5)

## Volunteer Experience

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### **Programming Contest Coordinator at SUST SWE TECHNOVENT 2023**

- Worked as a Programming Contest Coordinator, overseeing the setup and management of the contest infrastructure for participants from 100+ universities nationwide, and led a team of juniors in executing the event.

### **Photography Team Lead at SUST SWE TECHNOVENT 2023**

- Led the photography team to cover all major events, including the opening and closing ceremonies, programming contest, hackathons, and security contest.