

Mahmudul Ahsan

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linkedin.com/in/ahsanmahmudul/ | github.com/mahmudulahsan | Problem Solving Profile

Experience

MyMedicalHub International | Jr. Software Engineer

Jul 2025 - Present

- Contributed to building AI-integrated web applications, implementing **component-based design** and integrating **automated user interactions via voice**. Worked on **human annotation modules** for AI workflows and participated in modernizing legacy codebases into newer, efficient design technologies.

Vivasoft Limited | Front-end Intern

Oct 2023 - Mar 2024

- Contributed to **front-end development** of the company's Visitor Management System. Developed optimized UI components using **React.js** and **Tailwind CSS**, collaborating in an **Agile** team with **Git** and version control best practices.

Technical Skills

- Project Management & Version Control:** Git, GitHub, Azure DevOps (Repos & Boards), Notion
- Programming Languages:** C, C++, Java, JavaScript, TypeScript, Python, HTML, Latex
- Frontend:** React, Nextjs, CSS, Sass (SCSS), Tailwind CSS, DaisyUI, Bootstrap, Shadcn, Jest, Redux
- Backend:** Node.js, Express.js, Sequelize ORM
- Database:** SQL, MySQL, NoSQL, MongoDB, Firebase
- Familiar With:**
- Solved 500+ algorithm and data structure problems in C/C++ across Codeforces, LeetCode and LightOJ

Projects

ScribeLogs - AI-Powered Chrome Extension | **React, Node.js, Express.js, Firebase, TailwindCSS, DaisyUI**

- Developed a Chrome extension that summarizes YouTube videos by extracting transcripts and using the **OpenAI API**. Optimized costs by storing pre-generated summaries in Firestore and handling user queries by sending only the summary instead of the full transcript, enabling efficient chatbot-style interactions.

Hospital Billing Management | **React, Express.js, Sequelize ORM (MySQL), Firebase Auth, TailwindCSS, Ant-Design**

- Built a hospital management and billing app using React.js and Tailwind CSS, with localStorage caching to reduce read/write load. Optimized UI performance and integrated dynamic reports for actionable admin insights.

LogicLifters - Course Management Site - [Link](#) | **React, Firebase, TailwindCSS**

- Developed a dynamic course management website with an admin panel to add new courses and content, enabling users to access course materials directly from the platform.

E-Dars - Quran & Islamic Course Site - [Link](#) | **React, Firebase, TailwindCSS, DaisyUI**

- Developed a Quran learning platform using React.js and public APIs, featuring Bangla translation, audio playback, and user favorites. Built interactive Salat courses with quizzes, scoring, word tracking, and a real-time leaderboard.

Certification & Achievements

- Fundamental IT Engineer Examination (ITEE FE Level 2) 2024

National Rank 5th

- RUET Day Innovation Idea Contest 2023

3rd

Education

Rajshahi University of Engineering & Technology

Jan 2020 - June 2025

B.Sc in Computer Science & Engineering | CGPA: 3.33 / 4.00

Research & Publication

Conference Paper | Computer Vision | Deep Learning | Multimodal AI

NCIM 2025

A Lightweight Framework for Facial Emotion Recognition: Leveraging Geometrical Priors with Spatial Features

- Developed a multimodal deep learning model for facial expression recognition, improving accuracy on challenging emotions like anger vs. disgust with up to 94% accuracy across datasets.

Undergraduate Thesis | Machine Learning | Cyber Security | Explainable AI

Optimizing Intrusion Detection in Banking Networks Using Machine Learning and SHAP Explanations

- Built machine learning models for anomaly detection in banking datasets and implemented SHAP-based Explainable AI techniques to enhance transparency and interpretability in threat detection.