# Sajib Rafi Hossain

<u>sajibrafihossain@gmail.com</u> — <u>linkedin.com/in/sajib-rafi-hossain</u> — <u>github.com/rafihoss</u> — rafihoss.github.io/Landing-Page/

#### Education

## Queens College, City University of New York

Expected May 2027

Bachelors in Computer Science, Minor in Mathematics

Queens, New York

#### Technical Skills

**Languages**: JavaScript · Python · TypeScript · Java · C++ · HTML · CSS

Technologies/Frameworks: React.js · Next.js · Tailwind CSS · JQuery · Firebase · Node.js · Express.js ·

 $PostgreSQL \cdot SQLite \cdot DynamoDB \cdot AWS \cdot Vitest \cdot Git/GitHub \cdot Bash Command Line$ 

## Experience

## Software Engineering Fellow

July 2025 - Present

CUNY Tech Prep

Remote

- Selected for a competitive, year-long fellowship for top CUNY computer science students, focusing on full-stack web development, cloud technologies, and professional software engineering practices.
- Training includes client- and server-side development, serverless & microservice APIs, ORMs, relational/NoSQL databases, TDD/BDD, CI/CD, security, Agile teamwork, and responsible AI agent integration.
- Building full-stack applications with React/Next.js (TypeScript), Tailwind CSS, Node.js/Express, PostgreSQL, DynamoDB, and AWS, supported by CI/CD pipelines with GitHub Actions.
- Implementing engineering best practices including minimum 70% test coverage, Lambda API development, infrastructure testing with LocalStack, and robust documentation (ADRs, READMEs, API docs).

# Software Engineering Fellow

July 2024 - September 2024

 $Headstarter\ AI$ 

Remote

Remote

- Engineered and deployed 5 AI-powered web applications, targeting scalability and user growth.
- Led a team in developing full-stack web applications using Next.js, React, Firebase, and other technologies, reducing development time by 30% through implementing modular components and CI/CD workflows.
- Optimized workflows, enhancing project delivery speed, ensuring seamless integration of modern web technologies like OpenAI, Pinecone, Stripe, and Clerk auth.

## Web Developer Fellow

September 2023 - April 2024

CodePath

- Expanded proficiency in web development technologies, including HTML, CSS, JavaScript, and React.js, through intensive training and project-based learning.
- Integrated API calls into the website, utilizing frameworks to fetch data and parse JSON responses from an unfamiliar API.
- Facilitated team-based coding sessions, optimizing project delivery times through effective code reviews and pair programming.

## **Projects**

# <u>CUNY GradeLens</u> JavaScript, React, Node.js, Express.js, OpenAI API, SQLite, Tailwind CSS, Chart.js

- Built an AI-powered platform during the CUNY Tech Prep Hackathon (75+ participants) that analyzes grade distributions with GPT-4, enabling natural language queries to deliver insights on professors, course difficulty, and teaching patterns.
- Developed a full-stack web app (React, Express.js, SQLite) with a chatbot interface, advanced search, and interactive visualizations (Chart.js), including robust data processing, professor name matching, and semester-based filtering.

#### AI Powered Expense Tracker

JavaScript, React, Next.js, OpenAI API, Firebase, Clerk, Material-UI

- Built an AI-powered expense tracker that allows users to split costs seamlessly using natural language input, with OpenAI extracting key details like amount, participants, and balances for automated calculations.
- Integrated Firebase for real-time data storage and Clerk for authentication, ensuring secure access, persistent user data across sessions, and a seamless user experience with automated expense tracking and retrieval.

# AI Flashcard SaaS

### JavaScript, React, Next.js, OpenAI API, Firebase, Stripe, Clerk

- Developed a full-stack flashcard web app that dynamically generates, saves, and organizes flashcards using Firestore's hierarchical data structure for efficient retrieval and real-time updates.
- Integrated Stripe for subscription payments and implemented Clerk authentication, enabling secure user access, premium feature management, and a scalable payment system.