# Sajib Rafi Hossain

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#### Education

## Queens College, City University of New York

Expected May 2027

Bachelors in Computer Science, Minor in Mathematics

Queens, New York

Technical Skills

Languages: Python  $\cdot$  JavaScript  $\cdot$  Java  $\cdot$  C++  $\cdot$  HTML  $\cdot$  CSS

**Technologies/Frameworks**: React.js · Next.js · JQuery · Firebase · Excel

Experience

## **Incoming Software Engineering Fellow**

Fall 2025

CUNY Tech Prep

Remote

Remote

# Software Engineering Fellow

July 2024 - September 2024

Headstarter AI
• 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

Remote

- 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.

#### Software Engineering Intern

February 2023 - April 2023

CTE Industry Scholars Program

Remote

- Designed and developed a dynamic website using HTML, CSS, and JavaScript to showcase an author and influencer's radio show, books, and events.
- Increased site visits and gained a 15% boost in product purchases by improving user experience and implementing optimized design strategies.
- Worked closely with the media team to align digital content and visual elements, ensuring cohesive branding and promotional success.

## **Projects**

## 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.

# AI-Powered Rate My Professor Assistant

Next.js, React, OpenAI, Pinecone, RAG

- Developed an AI-driven chatbot that retrieves and ranks professor recommendations based on student queries, leveraging OpenAI embeddings and Pinecone vector search for efficient data retrieval.
- Designed and implemented a responsive, user-friendly interface using React and Material-UI, enabling students to query and receive detailed, real-time professor insights with structured recommendations.