

Tanvir Islam

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EDUCATION

The City College of New York

Bachelor of Science in Computer Science

Expected Graduation: May 2026

- o **Related Coursework:** Computer Systems, Calculus II, Discrete Mathematics, Data Structures

EXPERIENCE

Software Engineer Fellow

Headstarter

July 2024 – Present

- Built and deployed 5 AI projects in 5 weeks using **React JS, Next.js, Firebase, Clerk, and Vercel**, following agile methodologies with weekly sprints and incorporated CI/CD practices for iterative deployment
- Collaborated with 3 Fellows to build and deploy a SaaS product that generates dynamic flashcards based on any topic using the **OpenAI API**, integrated a paywall and custom pricing plans using the **Stripe API**
- Participate in weekly sessions with engineers from Google, Y Combinator, Stanford, Amazon and top-startups

Software Engineer Intern

Ron Shipman

July 2024 – August 2024

- Redesigned all art exhibition catalogs using **React** and **Tailwind CSS** enhancing the visual appeal and user experience.
- Developed a dynamic, responsive web interface for seamless online art viewing and purchasing.
- Collaborated with the marketing team to implement SEO strategies, boosting the gallery's online visibility

Undergraduate Research Assistant

City College of New York

June 2024 – August 2024

- Developed **AI-enabled** UAS for wildfire management, using **Python and Raspberry Pi** for real-time data collection and analysis, enhancing vegetation fuel measurement and fire monitoring.
- Applied **Machine Learning** and **Deep Learning algorithms** for wildfire detection, classification, and predictive modeling, improving risk assessment and management strategies in pre-, active-, and post-fire stages.

PROJECTS

ProfLens AI | [Github](#)

August 2024 - September 2024

- Engineered an AI-powered Rate My Professor Assistant using **Next.js, OpenAI's GPT-4 API, and Pinecone**, enabling users to query professor reviews with real-time, context-aware responses, improving search accuracy
- Integrated a **Retrieval-Augmented Generation (RAG)** architecture by leveraging Pinecone's vector database to store and retrieve professor data efficiently, ensuring fast response times and enhanced relevance of AI-generated insights.
- Developed an interactive, responsive user interface, optimizing it for cross-device compatibility and providing a seamless interaction with the AI model through an intuitive design.

Flashcardify | [Github](#)

June 2024 - August 2024

- Developed an AI-powered flashcard SaaS using **Next.js, Firebase, and OpenAI API** for dynamic content generation.
- Enabled interactive flashcards with a flip feature, revealing answers to AI-generated questions.
- Integrated **Stripe API** for payment processing and **Clerk** for user authentication, ensuring a secure user experience.

Patient Service Management | [Github](#)

January 2024 - March 2024

- Developed a healthcare data management system using FastAPI for RESTful API and ReactJS for UI.
- Implemented **SQLAlchemy ORM** models to maintain data integrity and provide accurate database representation, while utilizing **Pydantic** models to optimize data serialization and improve overall system performance.
- Engineered a modular ReactJS UI with efficient state management and enhanced interactivity.

ACTIVITIES

Computer Science Content Creator - [@tancodes](#)

October 2023 - Present

- Curating educational computer science content, resulting in over **9000 followers**, gathering **1,600,000 likes**
- Establishing and managing a thriving social media platform focused on **computer science education**, providing content and guidance to new enthusiasts in the world of programming and coding

SKILLS

Languages/Frameworks: C++, Python, HTML/CSS, JavaScript, ReactJS, NextJS, Tailwind CSS

Developer Tools: Git/Github, VS Code, Supabase, Wix, Figma, Firebase

Interests: Soccer, Anime, Hiking, Photography