Tanjim Ahammad

github.com/tahammad | linkedin.com/in/tanjim-ahammad-b737142a1 | tanjim.ahammad@stonybrook.edu | (929) 245-3510

Education

Stony Brook University — Stony Brook, NY August 2022 - May 2026
Current GPA: 3.5/4.0 — Dean's List *B.S. Computer Science*

Coursework

Relevant Courses: Data Structures (Java), Foundations of Computer Science (Python), Programming Abstractions (Ocaml & Java), Systems Fundamentals (Assembly & C), Probability & Statistics (R), Analysis of Algorithms

Skills

Languages: Python, OCaml, C, Java, JavaScript, Ruby on Rails, Assembly, R, LaTeX, HTML, CSS
Tools & Databases: Git/GitHub, Linux, Unix Shell, React, Node.js, Next.js, Express.js, Pinecone, Clerk, PostgreSQL, MongoDB, Firebase, Stripe, Vercel, Blender, OpenAI, AWS

Experience

Software Engineering Fellow | *Headstarter AI* July 2024 – September 2024

- Developed and deployed AI-driven applications using Next.js, OpenAI, Pinecone, and StripeAPI, enhancing user experience and functionality.
- Led a team of 4 engineering fellows in full-stack development projects, implementing MVC design patterns to improve code maintainability and scalability.
- Collaborated with engineers from Amazon, Google, and Capital One to enhance skills in Agile methodologies, CI/CD pipelines, Git version control, and microservices architecture.

Information Technology Intern | *Cambria Heights Academy* July 2023 – August 2023

- Implemented storage optimization strategies, increasing system performance and enhancing resource utilization.
- Managed and updated 200+ computing devices, ensuring 100% accuracy in documentation and status tracking.
- Diagnosed and resolved technical issues across Mac, Windows, and ChromeOS environments.

Projects

RA.I.T My Professor | *JavaScript, Python, HTML, CSS, React, Next.js, Pinecone, Vercel*

- Leveraged OpenAI and designed a robust API to provide intelligent, context-aware information about professors and courses, ensuring seamless user interaction and query processing.
- Utilized Pinecone for vector database management and OpenAI for natural language processing, integrating Retrieval-Augmented Generation (RAG) techniques to enhance the AI assistant's ability to generate relevant and context-aware responses to user queries.

NutriBot | *JavaScript, HTML, CSS, MongoDB, OpenAI, Node.js, Next.js, React, Vercel*

- Leveraged the OpenAI API to develop a customer support chatbot specialized in providing product-related information, managing complaints, and assisting users.
- Designed the chatbot with intuitive front-end features and robust backend integration to ensure optimal performance and high user satisfaction.

FlashBack AI | *JavaScript, Firebase, OpenAI, React, Next.js, Clerk, Stripe*

- Created an AI-powered flashcard web application that generates study materials based on user-defined topics, enhancing learning efficiency.
- Implemented secure user authentication, enabling users to register, log in, and access their personalized flashcard sets.
- Deployed Firebase for robust user authentication and storage of flashcard data, ensuring seamless access and data integrity.
- Integrated seamless payment processing via Stripe, allowing users to easily purchase subscription plans for additional features.

Bash Terminal | *Eclipse, Java*

- Developed a Java-based bash terminal simulator supporting commands like "pwd", "ls", "touch", "cd", and "exit", emulating a Unix-like command line interface.
- Implemented a tree data structure using a linked list to manage file hierarchy and operations efficiently.
- Applied recursive algorithms to optimize tree traversal, enhancing code efficiency and readability.

Search and Replace | *C*

- Developed a C program that reads a .txt file and replaces all instances of a user-specified word, supporting complex search-and-replace operations.
- Generates a new .txt file with the updated content, ensuring original data preservation.
- Added functionality to replace words based on user-defined suffixes or prefixes, increasing the flexibility of the search-and-replace tool.