# Brandon Wong

#### Education

#### Stony Brook University

Sept. 2022 - Dec. 2025

Bachelor of Science in Computer Science

Stony Brook, NY

#### Experience

WebGen

Aug. 2024 – Present

Undergraduate Researcher | Javascript, HTML, CSS

Stony Brook, NY

- Engineered a responsive web platform aggregating health data from 4 APIs, visualized through 8 dynamic charts and heatmaps using JavaScript and Plotly.js.
- Streamlined medical research workflows by creating a tool with SerpAPI to fetch up to 10 relevant articles from Google Scholar.

### Stony Brook University

Sept. 2023 - Jan. 2024

Undergraduate Researcher | R, Javascript, HTML

Stony Brook, NY

- Identified key health trends by analyzing 42 datasets with R and JavaScript, addressing challenges across 127 districts.
- Presented actionable insights and data visualizations to faculty, influencing the direction of public health strategies.

## **Projects**

Reddit Clone | React, Node.js, Express.js, MongoDB, JWT, Git

Sept. 2024 - Dec. 2024

- Developed a robust social media platform enabling users to create posts, join communities, and engage in discussions with secure JWT-based authentication.
- Designed and built advanced admin tools for managing users, posts, communities, and comments, enhancing administrative control and platform oversight.
- Incorporated MongoDB for scalable data storage and React for a dynamic, responsive user interface, delivering a seamless and interactive user experience.

Stock Tracker | React, Node.js, Express.js, MongoDB, Mongoose, Git

June 2024 - Aug. 2024

- Designed and implemented a stock trading platform offering portfolio management, real-time stock price updates, and trade history tracking using React and MongoDB.
- Integrated Yahoo Finance and Alpha Vantage APIs for live stock data and ticker symbol search functionality, providing accurate and seamless user experience.
- Architected the application using the MVC design pattern and RESTful APIs, optimizing scalability and client-server communication for real-time performance.

**Todo App** | React, Node.js, Express.js, PostgreSQL, Bootstrap, JWT, Git

Aug. 2024

- Built a secure task management app with JWT-based authentication and full CRUD operations for user task management.
- Designed an intuitive frontend and robust backend, enabling seamless user interaction and efficient data storage.

#### Dynamic Memory Allocator | C, Linux

Mar. 2024

- Constructed a high-performance memory allocator with malloc, free, and memalign functions, leveraging first-fit policy and immediate coalescing from scratch.
- Optimized memory utilization through advanced design techniques, ensuring reliability and efficiency in dynamic memory management.

## Leadership / Extracurricular

ChinaBlue

Fundraising Head

Spring 2024 - Present

Stony Brook University

- Managed a \$10,000 budget and spearheaded fundraising events, achieving a 60% profit margin.
- Led bi-weekly strategy meetings to plan and execute initiatives with a focus on collaboration and impact.

#### Technical Skills

Languages: Java, Python, JavaScript, Ruby, SQL (Postgres), C

Technologies/Frameworks: React, Node.js, Express.js, MongoDB, JWT Developer Tools: Git, VS Code, Postman API, Linux, Agile Development