Brandon Wong

New York, NY

Education

Stony Brook University

Aug 2022 - May 2026

Bachelor of Science in Computer Science

Stony Brook, NY

• Relevant Courses: Fundamentals of Software Development TA, Data Structures & Algorithms, Software Engineering, Computer Networks, Operating Systems, Web Security, Scripting Languages

Work Experience

Amazon Web Services (AWS)

May 2025 - Aug 2025

Software Development Engineer Intern

Seattle, WA

- Developed serverless architecture integrating with an existing metadata tool to fetch, process, and analyze permission sets across 170+ AWS organizations using 5 AWS Lambda functions implementing similarity algorithms to compare datasets to identify duplicates, and security vulnerabilities while storing recommendations in Amazon S3.
- Leveraged parallel Step Function workflows to coordinate **2 Lambda** functions to process data concurrently and optimized workflows by filtering out **96**% of unnecessary comparisons, reducing permission set analysis processing time by **4 times** and conserving memory, allowing the processing functions to stay within Lambda limits.
- Implemented **AWS EventBridge** for scheduled permission set analysis, reducing permission set and permission assignment technical debt by over **50%**, and enhancing security by analyzing permission drifts using **Python**.

Basta G-SWEP Fellow Remote

• Engaged in 10 weeks of pair programming and **mentorship** with a Google Software Engineer to strengthen problem-solving abilities, and enhance behavior and technical interview skills.

Stony Brook University

Aug 2023 - May 2025

Undergraduate Researcher

Stony Brook, NY

- Programmed and deployed a JavaScript-based web application aggregating health data from 4 APIs, visualized through 8 dynamic charts and heatmaps using Plotly.js, and streamlined medical research workflows by creating a tool to fetch 10+ relevant articles from Google Scholar API.
- Identified key health trends by analyzing 40+ datasets with R and JavaScript, addressing challenges across 127 districts, and presented actionable insights and data visualizations to influence the direction of public health strategies.

Projects

Smart Parking System (P4SBU) \mid GitHub

 ${\bf React \mid Node.js \mid PostgreSQL}$

• Collaborated with peers to deploy a scalable web app enhancing parking experiences of **20,000+** Stony Brook faculty, students, and visitors, incorporating **MapBox API** for an interactive campus map with wayfinding algorithm-based parking suggestions, a user-profile-driven reservation system, and an admin dashboard for oversight.

Phreddit | GitHub

 $React \mid Node.js \mid MongoDB$

• Engineered a full-stack platform supporting 1000+ users using CRUD functionality to facilitate core features, including community creation, threaded commenting, voting, context search, user profiles, and a reputation system, post creation, and engage in threaded discussions, enhancing user engagement across the platform.

Leadership / Extracurricular

ChinaBlue Aug 2023 – Present

Treasurer (2025–2026), Fundraising Head (2024–2025)

Stony Brook University

- Managed a \$10,000+ budget and led weekly cabinet meetings to coordinate and execute cultural events.
- Led bi-weekly meetings to plan and spearhead 4 fundraising initiatives a semester, achieving a 210% profit margin.

Technical Skills

Languages: Java, Python, HTML5, CSS, JavaScript, TypeScript, C

Developer Tools: AWS, Postman, Git, Agile, CI/CD

Libraries/Frameworks: NodeJS, ReactJS, PostgreSQL, MongoDB