Alexander Wu

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EDUCATION

New York University   Sep 2022 - May 2026

Bachelor of Science, Mathematics and Computer Science

Minor: Cybersecurity

Coursework: Data Structures and Algorithms, Object Oriented Programming, Design and Analysis of Algorithms, Intro to Databases, Intro to Machine Learning, UNIX System Programming

SKILLS

Programming: Python, C/C++, Java, Kotlin, JavaScript, SQL
Web Development: HTML, CSS, Flask
Tools & Frameworks: PyTorch, React, AWS, MySQL, Pinecone

EXPERIENCE

Amazon   May 2025 - Aug 2025
Software Development Engineering Intern

PNC Financial Services   May 2024 - Aug 2024
Software Engineering Intern
- Conducted research with the Technology Innovations team on 6G and deepfake detection.
- Prototyped small language model (SLM) applications using PyTorch and implemented biometric verification for Android apps.
- Developed a chatbot with Retrieval-Augmented Generation (RAG) using Python and Pinecone vector database, boosting compliance team productivity by 35%.

New York University   Aug 2023 - Present
Computer Science Head Teaching Assistant (OOP in C++)
- Mentored 3+ new TAs per semester, helping improve course support
- Led two 60-student weekly labs, guiding students through object-oriented programming concepts.
- Graded weekly assignments for 300+ students annually

PROJECTS

Stock Educator | Python, JavaScript, React, AWS
- Developed a web app that teaches users stock market concepts based on historical data.
- Integrated AWS Lambda and API Gateway for efficient API calls to OpenAI models for stock trend analysis and stock information stored on AWS.

Autograder | C++, Python
- Built an automated grading tool for NYU's OOP course, improving grading speed by 20%.
- Implemented automatic output validation, reducing TA workload for 300+ students per semester.

Air Ticket Reservation System | Python Flask, SQL, HTML, CSS
- Designed an online flight booking system with customer and staff accounts.
- Developed the backend using MySQL, Flask, and Apache, connecting to a responsive UI in HTML/CSS.