

Robert C. Wong

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EDUCATION

Stony Brook University

Bachelor of Science in Computer Science

Stony Brook, NY

Aug. 2022 – May 2026

Relevant Coursework: *System Fundamentals 1 & 2, Data Structures & Algorithms, Analysis of Algorithms, Programming Abstractions, Discrete Mathematics, Linear Algebra, Probability & Statistics, Calculus 1 & 2*

EXPERIENCE

Software Developer - Summer College Intern

NYPD Compliance Division

July 2024 - August 2024

Manhattan, New York

- Developed user-friendly applications to transform complex and inaccessible systems into easily navigable tools for staff with and without limited computer experience, ensuring accessibility and ease of use for all users.
- Identified problems and inefficiencies in the unit, implementing software solutions to streamline workflow.
- Tackled issues concerning big data processing, user submission forms, and database management bettering the quality of life for staff working on their own tasks.
- Refactored an old R script into a standalone Python program, increasing efficiency by X% and developing a front-end to improve user experience and usability.

AI Trainer

Outlier AI

June 2024

Remote

- Analyzed the output and backend of an AI model according to given prompts, reviewing the steps the model took, which included Python and SQL processes.
- Assessed which output was best and provided a detailed justification regarding it.
- Contributed to the AI model's improvement by feeding back comprehensive justifications, enhancing its ability to generate accurate and relevant responses for future prompts.
- Maintained detailed records of evaluations and justifications to track progress and identify areas for further enhancement.

PROJECTS

CompGenie - Automatic Data Processing | *Python, pandas, openpyxl, python-pptx, CustomTkinter* June 2024 – August 2024

- A full stack Python-based application for the NYPD to automate the generation of reports and presentations, enhancing efficiency by replacing manual computations and data entry.
- Utilized pandas for data processing to read, clean, and compile incident, interaction, and arrest data.
- Designed an intuitive front-end using CustomTkinter, prioritizing ease of use and utility for non-technical staff.
- Generated both citywide and borough-specific statistics. Outputting results in comprehensive Excel reports using openpyxl and PowerPoint presentations using python-pptx.

Legion - Daemon Manager | *C, Unix System Calls, Signal Handling, Process Control* March 2024 – April 2024

- Developed a Unix application for process handling and inter-process communication.
- Created and managed daemons with functions for starting, stopping, and logging activities.
- Employed pipes and signal handlers for secure and effective synchronization and control.
- Ensured system stability with robust error handling and signal safety mechanisms.

Charla - Chat Server | *C, POSIX Threads, Sockets, CSAPP Library*

April 2024 – May 2024

- Developed a multi-threaded chat server in C for handling multiple client connections.
- Utilized POSIX sockets for real-time messaging between users.
- Ensured thread-safe operations with mutexes and semaphores to manage shared resources.
- Designed registries for dynamic user sessions with functionalities for registration and querying.

TECHNICAL SKILLS

Languages: C, Rust, Python, JavaScript, Java, OCaml, MIPS Assembly, HTML/CSS, PostgreSQL

Libraries: pandas, NumPy, python-pptx

Operating Systems: Windows, Linux, MacOS

Developer Tools: Git, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse

Other: Adobe Photoshop, Adobe Illustrator