

Sam Weldon

📍 New York, New York 📩 sam@sam-weldon.com ☎ (860) 931-6662 💬 -sam-weldon 💬 samweldon9393

Education

- Columbia University** Jan 2024 – Dec 2026
Bachelor of Arts in Information Science GPA: 4.1 / 4.3
- **Coursework:** Artificial Intelligence, Databases, Data Structures, C++ for C Programmers, Advanced Programming, Advanced Systems Programming, Natural Language Processing
- Housatonic Community College** Jan 2020 – May 2023
Associate of Arts in History GPA: 4.0 / 4.0
- **Honors:** Summa Cum Laude, Phi Theta Kappa Honor Society

Skills

Languages: C++, C, Python, SQL, JavaScript, TypeScript, Java

Technologies: Pandas, Linux, Bash, React, HTML, CSS

Experience

- Advanced Programming Teaching Assistant** New York, NY
Columbia University Sept 2025 – Present
- Hold weekly office hours and provide one-on-one guidance to students on debugging complex systems, compiling, and understanding program behavior at the system level.
 - Reinforce over 300 students' understanding of version control using Git, Makefiles, and UNIX shell tools as part of a professional software development workflow.
 - Facilitate learning of C programming language and web-based software architecture concepts, including multi-tier architectures and HTTP protocol differences.
- Summer Fellow** Ossining, NY
Sing Sing Prison Museum June 2025 – Aug 2025
- Developed a production-ready React and TypeScript application to be embedded in the museum's visitor center as an interactive exhibit, enabling users to explore prison architecture through a responsive UI.
 - Designed modular front-end components and implemented state management for smooth navigation and scalability within the exhibit environment.
 - Built custom data visualization animations in Python (Manim) to illustrate trends in incarceration, integrating statistical data with compelling visual narratives for public presentations.

Projects

- Make** [Request Private Gist](#) ↗
- Implemented the command-line Make program, including serializing and recording cache files to improve efficiency.
 - Tools Used: C++, Valgrind, GDB, Git
- Data Collection Sentiment Analysis Project** [Reddit-Hates-Coaches](#) ↗
- Developed a data pipeline to scrape, store, and analyze online comments about NBA coaches using HuggingFace's pre-trained transformers model API for sentiment analysis.
 - Tools Used: Python, SQL, Hugging Face Transformers, Pandas, Matplotlib, Git, GitHub
- NYC Restaurant Database Web App** [Request Private Gist](#) ↗
- Collaborating with a teammate to design and build a full-stack web application with a PostgreSQL backend and Python-based server hosted on a Google Cloud Virtual Machine to manage and query a database of NYC restaurants.
 - Tools Used: Python, JavaScript, PostgreSQL, Flask, Google Cloud, Google Maps API, Git, GitHub
- Personal Website** [SamWeldon9393](#) ↗
- Designed and developed my personal portfolio website from scratch, including embedded, interactive data visualization utilizing AI coding assistants and open-source libraries
 - Tools Used: JavaScript, HTML, TailwindCSS, d3.js, Claude, ChatGPT, Git, GitHub
- Web Server** [Request Private Gist](#) ↗
- Created a custom web server from scratch in C using HTTP 1.0 protocol, including both frontend and backend servers to handle user requests for database queries.
 - Tools Used: C, Valgrind, GDB, Git