

Weston Crewe

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EDUCATION

Claremont McKenna College, Claremont, CA

May 2025

Bachelor of Arts, Computer Science (through Harvey Mudd College) with Data Science Sequence

- GPA: 3.7/4.0
- Awards: SCIAAC All-Academic Team - 2022, 2023, 2024, 2025; CSC Academic All-District Team 2025
- Relevant Coursework: Algorithms; Data Structures & Program Development; Data Science Foundations; Big Data; Computer Vision; Computing for Discovery with ML; Computing Practices; Computer Systems; Computability & Logic
- On-Campus Roles: Intro to Computer Science Grader/Tutor, First-Year Orientation Guide, Junior Class Vice President

Skills

- Proficient: Python, C++, SQL, PostgreSQL, R, OpenAI, Azure Cloud Services, Git, Agile Development
- Experienced: PyTorch, MongoDB, Java, JavaScript, TypeScript, Express.js, Node.js, Flask, React, Swift, Docker, CI/CD

WORK EXPERIENCE

MusicDB, Claremont, CA

Apr 2025 – June 2025

Backend Software Engineer Intern

- Built Python web-scraping programs to populate event ticket sales database 15x faster than previous manual entry
- Advised company founders with backend system architecture and database engineering during startup phase

Multibeam Corporation, Santa Clara, CA

Jun 2024 – Aug 2024

Data Science Intern

- Engineered data filtration and visualization software in Python, enabling a 10x improvement in time to detect and mitigate concurrent system faults and informing broader design enhancements to increase system reliability
- Orchestrated seamless application deployment with a well-documented codebase and usage manual to senior management

Lowe Institute of Political Economy, Claremont, CA

May 2023 – Jul 2023

Research Assistant, Data Analyst

- Gathered and processed historical deficit projection data from the Congressional Budget Office, calculated error rates over 50 years, and published an article that investigated long-term error trends and their root causes
- Applied clustering algorithms on US Census Bureau data using R to categorize similar census tracts across California and visualized findings in heat maps and geographic census plots

CAPSTONE EXPERIENCE

Microsoft Corporation, Redmond, WA

Aug 2024 – May 2025

Computer Science Clinic Student, Team Lead

- Developed a GPT-4o recommendation system to analyze active bugs and locate prior similar defects, delivering analogous solution steps to engineers and saving an estimated 112,000 debugging hours per year for the Azure Hardware team
- Spearheaded agile product management and consistent communication between a team of 6 students, a faculty advisor, and 2 client liaisons from the Azure CHAT and SPACE teams
- Implemented an AzureSQL RDBMS with an automated ETL pipeline to maintain an up-to-date bug report database
- Integrated OCR and LLM tools to summarize error screenshots, enhancing our recommendation system's functionality

Wang Globalnet, Vernon, CA

Aug 2023 – Dec 2023

Data Science Capstone Student, Coding Lead

- Leveraged hyperparameter optimization on time-series forecasting models to programmatically predict demand for 2700 food products, enabling the company to alter purchasing behavior to ensure inventory matches demand
- Classified product groupings based on historical sales pattern trends with machine learning clustering algorithms
- Engaged corporate stakeholders through presentations and delivery of a statement of work and final report

ACADEMIC & PERSONAL PROJECTS

- **Pomodoro Timer:** Developed a worktime management timer application using a MongoDB, Express.js, React, Node.js, and JavaScript stack with Vite, Tailwind, Docker, multi-platform deployment, and automated API testing
- **Twitter Clone:** Used CI/CD practices with Python, Flask, Gunicorn, and Nginx to build a social media web application with a functioning API and PostgreSQL database for frontend queries on 10 million fake users and tweets in 0.5ms
- **Computer Vision 3D Reconstruction on Indoor Scenes:** Generated 3D renderings out of LiDAR data using the deep learning Point Completion Network and Open3D software
- **HashSet:** Programmed a HashSet from scratch in C++ through test-driven development, with exercised comprehension of Big-O complexity, polymorphism, and amortization to conduct experiments for program run-time
- **Spampede:** Created a snake game application in Java; employed object-oriented programming and MVC architecture

LEADERSHIP EXPERIENCE

NCAA Varsity Athlete, CMS Swim and Dive Team

Aug 2021 – Present

- 2025 Schoenfeld Award for Inspiration and Leadership
- 2023 SCIAAC 200 Yard Medley Relay Champion

Staff Manager and Referee, CMS Recreation Intramural Sports

Aug 2023 – Present