

Weston Crewe

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EDUCATION

Claremont McKenna College *Bachelor of Arts, Computer Science Major with Data Science Sequence* May 2025

- **GPA:** 3.7/4.0
- **Awards:** SCIAC All-Academic Team 2022-2025, CSC Academic All-District Team 2025
- **Relevant Coursework:** Algorithms, Data Structures, Big Data, Computer Vision, Computing Practices, Computer Systems
- **On-Campus Roles:** Intro to Computer Science Grader/Tutor, First-Year Orientation Guide, Junior Class Vice President

EXPERIENCE

Backend Engineer Intern | MusicDB Apr – June 2025

- 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

Team Lead, Backend Engineer | Microsoft Corporation | Computer Science Clinic Aug 2024 – May 2025

- 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 project management and communication across a team of 6 students, 1 advisor, and 2 client liaisons
- 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 functionality by 20%

Data Science Intern | Multibeam Corporation Jun – Aug 2024

- 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

Coding Lead | Wang Globalnet | Data Science Capstone Aug – Dec 2023

- Optimized time-series forecasting models through hyperparameter tuning to predict demand for 2,700 food products
- 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

Data Analyst, Research Assistant | Lowe Institute of Political Economy May – Jul 2023

- 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

ACADEMIC & PERSONAL PROJECTS

- **Twitter Clone:** Used CI/CD practices with Python, SQLAlchemy, Flask, 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
- **Indoor Scene 3D Reconstruction:** Generated 3D renderings out of LiDAR data using deep learning and cloud enhancement
- **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

SKILLS

- **Languages:** Python, C++, Java, JavaScript, SQL
- **Cloud & AI:** Azure Cloud Services, Azure AI Foundry, OpenAI, Cursor
- **Frameworks & Tools:** PostgreSQL, PyTorch, React, Node.js, Flask, Docker, Git

LEADERSHIP EXPERIENCE

NCAA Varsity Athlete | CMS Swim and Dive Team Aug 2021 – May 2025

- Balanced 20+ hours of weekly training with rigorous coursework, developing time management and resilience under pressure
- 2025 Schoenfeld Award for Inspiration and Leadership
- 2023 SCIAC 200 Yard Medley Relay Champion

Staff Supervisor and Referee | CMS Recreation Intramural Sports Aug 2023 – May 2025

- Managed 20 referees serving 200+ players, leading staff training and hiring processes while overseeing 10 games weekly
- Fostered an engaging, high-energy environment that improved staff retention and increased referee applications by 5x