Austin Meléndez

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OBJECTIVE

Detail-oriented and easy-going individual looking to gain relevant industry experience through an internship. Excellent at problem solving, communication and dedicated to delivering on-time results.

EDUCATION

Bachelors of Science in Computer Science **California State University, Sacramento** Expected May 2026
Bachelors of Science in Statistics **California State University, Sacramento** Expected May 2026
Minor: Business Analytics **GPA:** 3.61 **Honors**: Dean's Honors List, Spring 2023 - Spring 2024
Relevant Coursework: *Analyzing and Processing Big Data*, *Data Visualization*, *Database Systems*, *Software Engineering*, *Systems Programming in UNIX*, *Statistical Computing*, *Probability Theory*, *Mathematical Statistics*, *Linear Algebra*, *Data Structures and Algorithms*, Intelligent Systems, Computational Biology, Business Intelligence Applications, Data Mining for Business Analytics, Data Analytics and Mining

KEY SKILLS

Languages: Python, Java, Bash, SQL, HTML, CSS, C
Databases: Oracle Database, AWS, Vendia
Data Analysis: Jupyter Notebook, Pandas Library, Seaborn Library, MATLAB
Tech: Git, MS Office

PROJECTS

Pharmaceutical Trial Progress Tracker (Full-Stack) [pharma.austinmelendez.com]

Class project with **external sponsor Vendia** providing cloud database services. Isolated portals for the FDA, doctors, and drug manufacturers to monitor status of active and completed clinical drug trials.

- Leveraged data **ACLs** in a **cloud network** to maintain segregated data access between clients in a **Vendia** database to ensure double-blind trial standards and secure patient identifying information.
- Added **Firebase Authentication** for security, allowing different levels of access in each client's portal.
- As **Project Lead**, directed meetings with **six members**, assigning tasks and troubleshooting problems to ensure progress for each bi-weekly **"sprint" deadline** and corresponding **client feedback meeting**.

Trends in Global Weather Data (Data Analysis) [weather.austinmelendez.com]

Analyzed global weather data hosted on a **remote server**. Created a **bash script** for data fetching and a **python script** calculating the median temperature at specified stations for every year data was recorded.

- Implemented **parallel programming** techniques to **reduce runtime** of the scripts by **70%** overall.
- Connected, using **SSH,** to a server hosting **108 GB** of global weather data collected from 1750 to 2023.
- Used **pandas** and **seaborn library** to graph data, creating approachable visuals to convey data trends.

TCP Chat Service with Machine Learning (Data Analysis) [pychat.austinmelendez.com]

Using Python, set up **sockets** to create **TCP connections** between clients and the server. Hosted project on web app using **NodeJS**. Tested **Machine Learning** algorithm to filter out expletive words from chat.

- K-Means Clustering and Machine Learning to suppress negative words in chat
- Added **multithreading,** creating a new thread with each TCP connection, **improving performance**.