Austin Meléndez

austin.mel@mail.com • www.austinmelendez.com
austin-melendez • austin-mel

OBJECTIVE

Detail-oriented, motivated, and hard-working individual looking to gain relevant industry experience through an internship. Excellent at problem solving, communication and dedicated to delivering results.

EDUCATION

California State University, Sacramento
Aug 2021 - Expected May 2026

Bachelors of Science in Computer Science

Relevant Courses: Intelligent Systems, Database Systems, Software Engineering, Systems Programming in UNIX, Data Structures, Computational Biology

Bachelors of Science in Statistics

Relevant Courses: Analyzing and Processing Big Data, Data Visualization, Statistical Computing in R, Probability Theory, Mathematical Statistics, Linear Algebra

Dean's Honors List: Spring 2023 - Spring 2024
GPA: 3.59

KEY SKILLS

Languages: Python, Java, SQL, R, HTML, CSS, C
Databases: Oracle Database, AWS, Vendia
Data Analysis: Jupyter Notebook, Pandas, Vega-Lite, D3
Tools: Git, TensorFlow, NLTK, NumPy, LaTex, Figma, MS Office

PROJECTS

Predicting House Price via Images (Regression Model)

Used **machine learning** to accurately predict house prices based on both textual and visual data.

- Using **TensorFlow** Functional API, create a custom combined model using a FCNN branch on the textual data and a CNN branch on the visual data, culminating in one price output prediction.
- Provided a detailed **analysis** of model **accuracy** with approachable **visualizations** and **relevant metrics.**

Pharmaceutical Trial Portal (Full-Stack)

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** 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)

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 various stations for every year data was recorded.

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

Mars Landmark Classification (Classification Model)

Used **machine learning** to accurately classify satellite images of Mars into seven landmark categories.

- Using **TensorFlow** Functional API, created a custom CNN model to accurately classify landmarks in satellite images. Utilized **transfer learning** with VGG-16 architecture to improve custom CNN model design.
- Provided a detailed **analysis** of model **accuracy** with approachable **visualizations** and **relevant metrics.**