

# Veronica Hangsan

SOFTWARE ENGINEER

San Francisco, CA

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## Education

### University of California, Davis

Davis, CA

BACHELOR OF SCIENCE IN COMPUTER SCIENCE

Sept. 2023 – Expected Jun. 2025

**Honors:** Leonard Ross CAAA Endowed Scholarship; Shimomura-Quon Family Scholarship; AvenueE Scholar Award

**Relevant Coursework:** Computer Architecture, Cryptography, Artificial Intelligence

## Certifications

### Cornell University

MACHINE LEARNING FOUNDATIONS CERTIFICATE, BREAK THROUGH TECH AI

Apr. 2024 – Aug. 2024

**Skills:** Exploratory Data Analysis, Dataset Building, Training Regression Models, Natural Language Modeling

## Experience

### American Express

Phoenix, AZ

SOFTWARE ENGINEERING INTERN

Jun. 2024 – Aug. 2024

- Collaborated with the Data Management team for ten weeks to develop a machine learning metadata search assistant using **Python**, providing a centralized platform for metadata across different artifacts to reduce manual effort.
- Utilized **ElasticSearch** for data ingestion and trained **FastText** model to generate vector embeddings, storing it in the Elastic index for efficient semantic search, handling fuzzy string queries.
- Used **k-Nearest Neighbor** algorithm for accurate retrieval of relevant metadata based on vector similarity, improving from 80% to above 90% in similarity score for exact string matches after optimization.

### American Express

Phoenix, AZ

SOFTWARE ENGINEERING INTERN

Jun. 2023 – Aug. 2023

- Collaborated with the Digital Acquisition Intelligence team for ten weeks to develop and manage **Rest API** versioning within Go2 credit card applications, improving the experience of 50+ millions of users in the United States.
- Mapped V2 requests with the current system using **Java**, ensuring seamless compatibility and data consistency during request retrieval triggered through **Postman**.

### American Express

San Francisco, CA

SOFTWARE ENGINEERING INTERN

Jan. 2023

- Collaborated with the Financial Data Engineering team in a team of 3 for two weeks to develop an interactive data table with business data, implementing login functionality and data filtering using **JavaScript, HTML, and CSS**.
- Worked with **DBever**, performing data manipulation with **SQL** to retrieve records from a database, performing insertion and deletion.

## Projects

### Sun Safe Alert App

JAVASCRIPT

Jul. 2024 – Present

- Developed a responsive **React-based** UI using **JavaScript and CSS** that provides real-time UV index updates, informing users when unprotected sun exposure poses a risk and recommending sunscreen application.
- Integrated OpenUV and OpenCage Geomap APIs to fetch geolocation, UV index, and weather conditions based on user-inputted zip codes, offering accurate sun safety alerts.

### Positive Book Review Predictor, Break Through Tech AI

PYTHON

Jul. 2024 – Aug. 2024

- Trained and optimized **logistic regression, support vector classifier, and random forest** models for book review sentiment analysis.
- Achieved over 80% accuracy in identifying positive reviews by using **GridSearch** to find the optimal hyperparameter values for a given model.

### Collision Detection and Alert System

ARDUINO

Sept. 2023

- Collaborated with a team of 3 students in the UC Davis AvenueE STEM Scholarship program to create a system that emits sound alerts when a collision risk is detected, enhancing road safety measures using **Arduino and C++**.
- Wired circuits to an ultrasonic sensor, passive buzzer, and red LED lights to enable sound alerts and sequential illumination when an object approaches the sensor.