# **TEJAS KAMTAM**

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#### **EDUCATION**

# **University of California, Los Angeles**

Los Angeles, CA

B.S. in Computer Science & B.A. in Business Economics

Sep 2021 – Jun 2025

**Cumulative GPA**: 3.330

- **Courses**: Software Construction (Python, React, Bash), C++, Computer Architecture (x86-64, MIPS)
- **Certificates**: DeepLearning.Al TensorFlow Developer; Microsoft 98-364 Database Administrator

#### **EXPERIENCE**

Innexgo San Jose, CA

Backend Engineer

May 2022 - Present

- Developed the backend for a primary React webapp using Rust on a microservice architecture to operate on received and transmitted commands over WebSocket and HTTP for a network of RFID card scanners
- Created SQL query schemas using PostgreSQL. Implemented multiple microservices on AWS EC2 instances to assemble attendance reports presented on the React webapp using a RESTful API
- Collaborated with sponsors and management to discuss financials, organize a pilot program at a local ISD, and evaluate the performance and durability of the microservice architecture

## **Bruin Spacecraft Group**

Los Angeles, CA

Overseer Chief Engineer

Sep 2021 - Present

- Developed software in C++ to analyze star position and orientation for the operation of a 3-unit cube satellite in Low-Earth orbit hosting a Xenon ion for an on-campus aerospace and propulsion research lab
- Designed a Python program hosted on a Raspberry Pi to analyze GPS data collected aboard a High-Altitude Balloon to transmit data packets to HQ and initiate cutdown and parachute deployment

### **PROJECTS**

# 50Whales - Humpback Whale Identification

Los Angeles, CA

Machine Learning Researcher

Jan 2022 - Mar 2022

- Worked with a group of 3 to develop a machine learning model to accurately classify over 25,000 whales into 5,000+ categories by integrating a Siamese convolutional neural network
- Incorporated transfer learning from ResNet18 and preprocessing techniques including object detection, image segmentation, color masks (grading, grayscale, etc.) in Pytorch using Pillow
- Achieved a 32% validation accuracy on the first epoch (cross-entropy) and utilized an Adam optimizer with a triplet loss to work up to a 65%+ accuracy across 10+ epochs

## **Home Base - Desktop Web Application**

Coppell, TX

Frontend Developer

Nov 2020 - Mar 2021

- Worked in a team of 4 to design a Windows desktop web application using Node.js and Electron to help the elderly more easily access important information using Google weather, email, and calendar APIs
- Utilized a MongoDB database to store user information and, later, presented the same user experience accessible across multiple devices and locations through automated cataloging of UIs

**Bruin Stock Group** 

Los Angeles, CA Sep 2021 - Jun 2022

Quantitative Analyst

- Identified over 15 options contracts each with a high probability of increasing open interest over 1-to-3month intervals for 10+ blue chip companies by creating algorithms on TradingView using PineScript
- Incorporated time series forecasting ML models to predict future premiums for current OTM options contracts by analyzing mean-reversion in Implied Volatility, Theta, Delta, and open interest

Proficient: Python (TensorFlow, PyTorch), C++, C, React

Experienced: JavaScript (NodeJS), Rust, PostgreSQL, MongoDB

Interests: NLP/NLU, time series forecasting, quantum computing, ARM ISAs, information theory