

# Dave Ho

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dave.ho@ucla.edu ♦ 3040 Vin Grande Ct San Jose, CA 95135 ♦ (408) 334-6432 ♦ <https://daveho.me>

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*I am a full-stack developer interested in a wide spectrum of technologies. Recently, I have been pursuing a newfound passion of using machine learning in various applications. In the coming summer, I hope to continue my exploration of more technologies and am looking for opportunities to work with others in innovative software projects.*

## EDUCATION

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### UNIVERSITY OF CALIFORNIA AT LOS ANGELES

Major in Computer Science; Minor in Statistics, Sep 2019 – Jun 2023 | GPA: 4.0

## EXPERIENCE

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### VMWare, Palo Alto, CA

*Data Science MTS*

Jul 2019 – Jun 2020

- Built Machine Learning models to automate security triaging process of virtual machines and classify true security issues
- Built Machine Learning models to predict workload timeouts on VMs, enabling proactive recovery actions to be taken
- Constructed multi-dimensional time-series prediction models to detect anomalies within machine health that would result in high cost and usage
- Developed a suite of Reinforcement Learning frameworks (DQN, DDPG, Reinforce, Actor Critic): [link](#)
- Designed Deep Learning and PyTorch workshop for VMware community Developed advanced NLP techniques for a lab in an internal ML conference Continued engagement as a consultant for Data Analytics and ML: [link](#)
- Developed advanced NLP techniques for a lab in an internal ML conference: [link](#)

### Ezra, San Jose, CA

*Founder, Full Stack*

Jun 2020 – Present

- Ezra is an AI-powered financial advisory mobile application that scrapes SEC, twitter, and news data to provide long term investment recommendations. [link](#)
- Implemented and trained graph recurrent neural network on S&P 500 price and sentiment data using PyTorch
- Implemented DCF Model to forecast intrinsic value of portfolio and predictive sharpe ratio optimization model (Backtests performed 15% better than S&P 500 on 2018-2020 backtest)
- 200+ users reserved for private beta launch.

### Twyne, Los Angeles, CA

*ML Research Engineer*

Sep 2019 – Present

- Twyne helps users interact with the world through simple and natural motions by bringing automated and customizable ML-based gesture recognition to the smartwatch.
- Developed data engineering (framing and labeling) scripts to process gesture motion data from smartwatch wearable
- Implemented and trained Spectrogram Fourier Transform of time series data and LSTM model using PyTorch (~87 % accuracy)
- Improved model and customization of user gestures with Siamese networks (95% accuracy)
- Constructed prototype that uses "swipe next" & "swipe back" gestures from smartwatch to navigate through google slides presentation

## ACTIVITIES & HACKATHONS

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### UCLA Hack on the Hill Hackathon (HOTH 7) 1st Place, Los Angeles, CA

- Best Hack 1st place award; Built fast-paced song-guessing game for parties.

Feb 2020

### UCLA DevX, Los Angeles, CA

- Backend engineer for several UCLA in-house startup projects. (e.g. pulp, twyne)

Sep 2019 - Present

### UCLA ACM AI, Los Angeles, CA

- ML Research Engineer for several AI based projects (e.g. deep fake detection, twyne)

Sep 2019 - Present

## SKILLS & INTERESTS

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### Languages

Python, C++, Javascript, SQL, R

### Systems

PyTorch, Linux, Git, RDBMS, Flask, Node.js

### ML

RL, RNN, CNN, GNN, GAN, NLP