Edwin Zhang

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Education

University of California, Santa Barbara, California   September 2019 – June 2023
Master of Science / Bachelor of Science Computer Science
GPA: 3.99
Regents Scholar (top 2.5% of school), College of Engineering Honors Student
Relevant coursework: Convex Optimization, Game Theory, Advanced Linear Algebra, Differential Geometry, Statistical Machine Learning, Special Topics in Deep Learning

Palomar Community College, San Marcos, California   September 2018 – June 2019
Relevant coursework: Multivariable Calculus and Differential Geometry, Linear Algebra

Research Interests

- Generalizability

- Deep Reinforcement Learning

- Self-supervised Learning

Research Experience

Improving Training Stability in Offline Reinforcement Learning (Jiachen Li, Professor William Wang) Sept 2021 – May 2022
Co-first author

- Designed alternative method for solving policy improvement in closed form through Taylor Approximation
- Utilized Gaussian Mixture Model for modeling heterogeneous policies tractably
- Submitted to NeurIPS 2022

Biometric authentication with EEG brainwaves (Yi Ding, Professor Tobias Hollerer)   March 2020 – Sept 2020
Experiment designer

- Designed variant of leave one out validation for binary classification on authenticated user
- Created new data loader class with Pytorch to use with Yi's existing EEG CNN
- Wrote up results for publication

UCSB Sexuality Research Project (Professor John Baldwin)   October 2019 – March 2020
Backend developer and Webmaster

- Reduced load times by 80% by enabling server and client side caching, increasing monthly viewership by 30% from 40,000 to 53,000
- Lead developer for homepage, topics page, search bar, and FAQ page.

Employment History

Meta
Machine Learning Intern   June 2022 – Present

Plato Systems
Computer Vision and Software Engineering Intern   June 2021 – June 2022

- Developed multiple view calibration pipeline through planar homographies and OpenCV.

- Created set up process and capture script for NVIDIA Jetson platform with multiple third party imaging providers.
- Designed and led benchmarking of several potential imaging candidates in low light, high light, and no light settings.
- Refactored and contributed to primary user-facing web application, utilizing VueJS and Express.

Allthenticate

Lead Fullstack Engineer/First Hire   Jan 2020 – June 2021

- Led development on cloud platform in early stage startup, architecting scalable and flexible REST API from scratch.
- Taught advanced Vue JS by taking complete responsibility at each step of the development phase – delivered full web application while teaching and leading two other interns working on the same project.
- Built and deployed python backend with over 27000 lines to use Elastic Beanstalk, implementing dockerized development process to speed up iteration cycles by 25%.
- Gained experience with emerging web technologies such as JWT, ProtoBuf, and Nuxt.js

Yaitea (self-employed)

Business Owner   August 2018 – September 2019

- Assessed a need for tutoring code and critical thinking to children, as programming skills arose in demand and traditional tutoring services struggled to keep up.
- Gained comprehensive experience with Google Cloud, Nginx, WordPress, and Frontend Web Dev through creating the tutoring business' website, at **yaitea.com**
- Collaborated with several students and parents to create lasting relationships
- Applied ability to learn rapidly and on the fly through the picking up and application of basic marketing to give sales pitches on the tutoring service
- Organized an extensive programming curriculum of 24 lessons
- Taught over 200 hours of coding and critical thinking to students

Awards and Honors

- Second out of 85 in AI classification competiton at UCSB, 2020

- First out of 78 in Startup Category at SDhacks, 2021

- Best use of Google Cloud out of 71 at SBhacks, 2021

- First out of 70 in Database Category at SBhacks, 2020

- First overall out of 6 at Santa Barbara Startup Weekend, 2019

- Regents Scholar UCSB, 2019

- AP Scholar with Distinction, 2019

- USA Computing Olympiad Gold League, 2018

Professional Skills

Advanced	Intermediate
Pytorch	**React JS**
Technical Communication (Explaining Code)	Bash Scripting
OpenAI Gym	Flutter
Vue JS (Frontend Web Dev)	Keras
Numpy/Pandas	