PATRICK YIN

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EDUCATION

University of California, Berkeley — B.A. Computer Science August 2019 - Present

- 4.0 GPA *(All Classes Taken for Letter Grade)*
- Regents' and Chancellor's Scholar — Merit-based scholarship for the top 2% of undergraduates at UC Berkeley
- Relevant Coursework: Machine Learning, Artificial Intelligence, Convex Optimization, Computer Architecture, Data Structures, Discrete Math and Probability, Linear Algebra, Multivariable Calculus
- Current Coursework: Deep Learning, Probability and Random Processes, Algorithms

EXPERIENCE

Berkeley AI Research — Undergraduate Researcher Jul 2020 - Present

- Working under Prof. Sergey Levine and Justin Fu on applying reinforcement learning to autonomous driving
- Developed a Hierarchical Conservative Q-Learning Model over a Deep Imitative Model for self-driving in CARLA
- Implemented a Residual CNN imitation learning pipeline and applied transfer learning techniques for Real2Sim between Berkeley Deep Drive and CARLA

PROJECTS

Lucent

- Developing a web application that allows users to create automatable workflows for data exploration/processing
- Undergoing rapid product iteration by reaching out and pitching to employees from CROs, Gilead, and Oracle
- Tech Stack: MERN Stack, Dagster, Flask, Pandas, Plotly, TypeScript, HTML/CSS, Redux, Python

Phyzmo

- Constructed a cross-platform application tracking moving objects and creating visuals based on recorded data for students in physics labs–published to Apple Store
- Tech Stack: GCP Vision API, GCP Cloud Functions, GCP Storage, OpenCV, Firebase, Python, Java, Swift

Absent

- Launched an iOS app coaching non-native speakers to improve their accent by analyzing their accent through voice recordings and providing feedback using word-level confidence analysis
- Tech Stack: GCP Speech-to-Text API, GCP Cloud Functions, GCP Storage, Firebase, Python, Swift

MLTube

- Produced a web application which predicts the virality of YouTube videos by creating a CNN for NSFW classification of the thumbnail, a CNN for clickbait regression of the title, and a live web scraper for trendy tags
- Tech Stack: Tensorflow/Keras, Flask, Selenium, HTML/CSS, Javascript, Python, Heroku App Deployment

FeeSplitter

- Invented a web application tracking shared expenses and balances between roommates, friends, and family
- Tech Stack: Javascript (Node.JS, Express.JS, React.JS), HerokuApp Deployment, HTML, CSS, SQL

SKILLS AND INTERESTS

Awards	Outstanding CS61A Project Award (2020), USA Computing Olympiad Gold Division (2019), National Merit Scholar (2019)
Languages	Python, C, Java, JavaScript/TypeScript, Swift, HTML/CSS, Scheme, LaTeX, SQL
Frameworks/Tools	PyTorch, MERN Stack, Redux, Dagster, NumPy, Tensorflow, GCP, Firebase, Git
Interests	playing guitar, chess, basketball, running, lofi, stock trading, product development