Patrick Yin

patrickhaoy@berkeley.edu ❖ (650) 238-7867 ❖ patrickyin.me ❖ linkedin.com/in/patrickhaoy ❖ github.com/patrickhaoy

EDUCATION

University of California, Berkeley | B.A. Computer Science, Applied Mathematics   **May 2022**
- GPA: 4.00
- Regents' and Chancellor's Scholar - Merit-based scholarship for the top 2% of undergraduates at UC Berkeley
- Current Coursework: CS 70 (Discrete Mathematics and Probability Theory), CS 61B (Data Structures), EE 16B (Designing Information Devices and Systems II), EE 16A (Designing Information Devices and Systems I), Math 53 (Multivariable Calculus), CS 61A (Structure and Interpretation of Computer Programs)

PROJECTS

Machine Learning Projects   **December 2019 – January 2020**
- MNIST Neural Network: Created a deep neural network from scratch generalized for any number of layers and neurons, using MNIST sample data as the training, validation, and test sets for the neural network
- Tic-Tac-Toe with Reinforcement Learning: Leveraged reinforcement learning in tic-tac-toe by training two agents to play against each other and using their policy to make one of the trained agents play against a human
- Shakespeare Text Generator with Recurrent Neural Network: Utilized TensorFlow to generate text using a character-based Recurrent Neural Network based on Shakespeare's writings

Phyzmo   **October 2019 – December 2019**
- Reduced university course cost by over $100 per student by constructing cross-platform application leveraging computer vision to help students visualize kinematic data for physics labs–published to App and Google Play Store
- Designed application to track moving objects and create visuals based on recorded data using Cloud AutoML
- Tech Stack: GCP Vision API, GCP Cloud Functions, GCP Storage, OpenCV, Firebase, Python, Java, Swift

Absent   **September 2019 – October 2019**
- Launched iOS app coaching non-native speakers to improve their accent by analyzing their voice recordings
- Utilized cosine similarity algorithm and word-level confidence analysis to dissect accent and provide feedback
- Tech Stack: GCP Speech-to-Text API, GCP Cloud Functions, GCP Storage, Firebase, Python, Swift

MultiFit   **August 2019 – September 2019**
- Devised a personal workout log merged with crowdsourced workout programs using Google Firebase
- Managed team of 3 by holding weekly debriefs and enforcing deadlines using ClickUp and Trello
- Tech Stack: Google Firebase (Authentication, Storage, Realtime Database), Swift

FeeSplitter   **June 2019 – August 2019**
- Invented a web application tracking shared expenses and balances between roommates, friends, and family
- Tracked over $5000 in transactions between users, helping them conveniently optimize their finances
- Tech Stack: Javascript (Node.JS, Express.JS, React.JS), HerokuApp Deployment, HTML, CSS, SQL

EXPERIENCE

Preclinical Medevice Innovation (PMI) | Intern   **June 2018 – August 2018**
- Initiated and built a database of all animal studies conducted by PMI, saving Quality Assurance and Regulatory Affairs employees over 300 hours and counting when searching through their 3000+ historical studies
- Provided assistance to lab technicians conducting experimental surgery on animals: induced anesthesia, observed EKG readings, inserted medical implants/drugs, and conducted anesthesia recovery

SKILLS & INTERESTS

- **Awards:** USA Computing Olympiad Gold Division 2019
- **Languages:** Python, Swift, Java, JavaScript, Scheme, R, HTML, CSS, LaTeX, SQL
- **Frameworks/Technologies:** Google Cloud Platform, TensorFlow/Keras, React JS, Node JS, Express, Firebase
- **Interests:** Meeting new people, traveling, the environment, learning Mandarin, basketball, anime, lofi, martial arts