Catherine Kung

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EDUCATION

UNIVERSITY OF CALIFORNIA, IRVINE

Irvine, CA

B.S. Computer Science, Informatics Minor

June 2020

• Honors: Magna Cum Laude (GPA: 3.96), Campuswide Honors Collegium, Phi Beta Kappa (PBK)

EXPERIENCE

INTUIT

Mountain View, CA

Software Engineer - Machine Learning Platform

August 2020 - Present

- Facilitated the onboarding of a backend service onto internal data lake and created dashboards on Kibana to expedite the process by which platform insights are generated
- Redesigned and led the development of a web application plugin used by data scientists and machine learning engineers to manage machine learning models
- Consolidated various platform services into one service, optimizing platform efficiency by centralizing focus and alleviating customer pain point of navigating multiple applications
- Redeveloped and open-sourced an internal CLI/SDK, <u>mlctl</u>, that allows ML Lifecycle operations to be controlled via a single command line interface or notebook environment

Software Engineer Intern

June 2019 - September 2019

- Maintained a web application used by tax analysts to create and modify models for calculating tax returns
- Integrated the frontend of the web application with the backend using REST API and React.js, improving performance time by 80%
- Increased the usability of the web application by implementing several React components with Redux framework to accommodate customer needs
- Accelerated testing procedures by developing the test automation infrastructure of the web application, leveraging Selenium, Jenkins, and Docker

INVESTIGATING VIRTUAL LEARNING ENVIRONMENTS (IVLE), UC IRVINE

Irvine, CA

Research Assistant

January 2019 - June 2020

- Conducted a systematic comparison of machine learning models in predicting academic success to better inform stakeholders regarding the use of predictive models in higher education
- Extracted various combinations of predictors from student clickstream data collected from approximately 2,000 college students and trained 5 machine learning models
- Evaluated models under technical and ethical considerations by determining predictive accuracy and satisfaction of fairness criteria: independence, separation, and sufficiency

CALIFORNIA INSTITUTE FOR TELECOMMUNICATION AND INFORMATION TECHNOLOGY (CALIT2) Irvine, CA

Research Assistant - UC Irvine Division

January 2018 - June 2019

- Collaborated with team to devise an interactive Chromecast application that monitors workout progress by providing feedback on form and speed of exercises via motion tracking
- Enhanced the user interface by researching the efficacy of sound, color, and animations in motivating users, implemented new features accordingly, and oversaw user testing

TECHSMART ACADEMY

Palo Alto, CA

Programming Instructor

June 2017 - August 2017

 Educated children on the fundamentals of Python and Java by integrating a curriculum that utilizes Minecraft and modifies existing functions and characters of the game

PUBLICATIONS/PRESENTATIONS

Kung, C., & Yu, R. (2021, January). Interpretable Models Do Not Compromise Accuracy or Fairness in Predicting College Success, presented at IJCAI 2021 Workshop on AI for Social Good.

Kung, C., & Yu, R. (2020, August). Interpretable Models Do Not Compromise Accuracy or Fairness in Predicting College Success. In Proceedings of the Seventh ACM Conference on Learning@ Scale (pp. 413-416).