Kaylee Deng

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EDUCATION

University of California, Irvine — GPA: 3.84/4.0

Bachelor of Science in Computer Science — *Graduating Fall 2021*

- **Relevant Coursework**: Data Structure Implementation and Analysis, Design and Analysis of Algorithms, Introduction to Data Management, Concepts in Programming Languages I, Project in Databases and Web Applications, Project in CS

PROJECTS

Fabflix — Full Stack Web Application

https://fabflix.shop — *Apr 2021 - Jun 2021*

- **RESTful API**: Implemented the RESTful API with JavaServlet, Javascript with Ajax for client-side, MySQL database management, deployed web app on Apache Tomcat, and used AWS and GCP instances as servers

- **Android and Search Integration**: Integrated to Android platform using Java, App and Web include fuzzy search, full-text search, and auto-complete

- **Security**: Enabled HTTPS, encrypted password and reCATPCHA

- **Scalability**: Improved application performance by using connection pooling with JDBC, Matser-Slave Replication, sticky session, and load balancer

Let's Fika — Full Stack Capstone Project

https://letsfika.today/ — *Jan 2021 - Jun 2021*

- **MERN Stack Development**: Implemented the RESTful API with NodeJS and ExpressJS, MongoDB Atlas for database management, and deployed on Heroku and Netlify

- **React**: Implemented front-end with React for both user flow and administration content management

- **OAuth2.0**: Pull contents from Spotify and Youtube, use OAuth2.0 authorizations for calling their API

Pixel Jump — Machine Learning Project

https://bikaylee.github.io/Pixel-Jump/final.html — *Oct 2020 - Dec 2020*

- **Deep Reinforcement Learning**: Jumping game simulation using Malmo. The agent learns from the reward system based on its actions. The environment is difficult with enormous action space in which the agent can choose the initial velocity and degree from a range of continuous data points.

- **Proximal Policy Optimization**: Trained the agent with PPO algorithm that makes updates based on the transitions that were obtained by the current policy and is used in the agent's decision for better performance

- **Classical Mechanics**: Based on the 3D projectile motion calculation to simulate jumps

EXPERIENCE

CCSF CS Department — San Francisco, CA

Teacher Assistant — *Aug 2018 - May 2019*

- **Python Tutoring**: Assisted 50 students with basic Python syntax

- **Java Tutoring**: Held office hours for tutoring students in Java fundamental concepts like inheritance and polymorphism

- **Assignment Grading**: Graded 200 student's homework assignments both in Java and Python courses

SKILLS

Languages: Java, Python, C++, JavaScript, MySQL   **Technologies**: React, NodeJS, ExpressJS, MongoDB