KAYLEE DENG

Software Engineer — San Francisco, CA

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Technical Skills

Languages: Java, Python, JavaScript, C++, C, SQL, HTML

Technologies/Frameworks: React, Node.js, Express, MongoDB, Flask, GitHub, AWS, RLlib

Education

UC Irvine   **2019 - 2021**

B.S. in Computer Science   *GPA: 3.85/4.0*

Relevant Coursework

- Data Structure Implementation and Analysis
- Design and Analysis of Algorithms
- Introduction to Data Management
- Information Retrieval
- Operating System
- Project in Artificial Intelligence
- Machine Learning and Data-Mining
- Project in Databases and Web Applications

Projects

Information Retrieval Project   **10/2021 - 12/2021**

https://cs121-search-engine-flask-app.herokuapp.com/   *Crawler and Search Engine*

- Implemented a **web crawler** to retrieve web pages from UCI ICS domain with **Sim Hash**
- Constructed a **partial indexer** to store the tokens based on the calculation of its **TF-IDF score**
- Improved the **search engine** to handle tens of thousands of web pages with a query response time under **300ms**
- **Technologies Used:** Python, Flask, HTML/CSS

Fabflix   **04/2021 - 06/2021**

https://fabflix.kayleedeng.com   *Full Stack Web Application*

- Implemented with **RESTful API**, HTTPS enabled, encrypted password and reCATPCHA
- Integrated the application to **Android platform** that retrieves data from the same backend environment
- Improved the application performance by 30% after applying **Master-Slave replication** and **load balancer** technique
- Enhanced user interaction by converting the data retrieval method to support full-text search and autocomplete that uses **Levenshtein distance**
- **Technologies Used:** JavaServlet, Javascript, MySQL, AWS, GCP, Android, HTML/CSS

Let's Fika   **01/2021 - 06/2021**

https://letsfika.today/   *Full Stack Capstone Project*

- Designed **system models** on database structure and web application functionalities
- Worked on website's user flow and administrative content management using **MERN full stack** development
- Retrieved media contents from hosting platforms, **Spotify and YouTube**, by calling the APIs with **OAuth2.0**
- **Technologies Used:** React, Node.js, Express, MongoDB, HTML/CSS

Pixel Jump   **10/2020 - 12/2020**

https://bikaylee.github.io/Pixel-Jump/final.html   *Deep Reinforcement Learning Project*

- Trained the agent with the **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
- Calculated the 3D projectile motion data points to perform a real jump in Malmo
- **Technologies Used:** Python, RLlib, PPO, Gym

Experience

Teacher Assistant (Java)   **San Francisco, CA**

CCSF CS Department   *08/2018 - 05/2019*

- Assisted students in acquiring better understanding of targeted weak areas within Java fundamental concepts
- Administered academic guidance and tutoring to students during office hours
- Evaluated 200 student's assignments with feedback