ANDY CAI

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EDUCATION

University of California, Los Angeles — Sept. 2018 to Current
B.S. Computer Science 2022
Relevant Coursework: Programming Languages, Software Construction Laboratory, Data Structures and Algorithms, Computer Architecture, Operating Systems, Discrete Mathematics
Activities: City Fellows Consortium: Los Angeles, Sigma Eta Pi Premier Co-ed Entrepreneurship Fraternity, DevX, Creative Labs, 180 Degrees Consulting

EMPLOYMENT

Facebook
Incoming Fall Software Engineering Intern — Sept. 2021 to Dec. 2021

Dropbox
Incoming Software Engineering Intern — June 2021 to Sept. 2021

The Routing Company — Cambridge, MA
Software Engineering Intern — Aug. 2020 to Current
- Developing microservices using Golang, GraphQL, and InfluxDB for Routable AI's route optimization API.
- Added request retrieval microservice to retrieve all ride requests a specific rider sends to the backend.
- Developed rider mobile application for public transit passengers using Flutter, GraphQL, and various other technologies.

Center for Vision, Cognition, Learning, and Autonomy — Los Angeles, CA
Research Assistant — Apr. 2020 to Current
- Research in Reinforcement Learning for path planning for self-driving vehicles under simulated environments.
- Simulate and improve behaviors of reinforcement learning agents in unknown environments with PyTorch.
- Contributed to an open-source vehicle simulation and data collection tool in C++ under video game environment.

Blok Party Inc. — South San Francisco, CA
Android Development Intern — June 2019 to Sept. 2019
- Designed and updated the user dashboard and marketplace on PlayTable's gaming console to a more modern UI in Android Studio with Java and XML.
- Created Profile caching mechanism to store user's profile information locally and fetches new profile information every 24 hours.
- Integrated Stripe's Android payment SDK to implement a payment flow that enables users to purchase games and a SetupWizard that guides users through the device setup process.

UCLA DevX — Los Angeles, CA
Frontend Lead — Apr. 2019 to Aug. 2019
- Led the iOS development of Pulp, an experience recommendation app for college students with Facebook SDK and 4Square API.
- Ideated and implemented a social feature that allowed users to share their favorite campus hot spots with friends.
- Performed A/B testing on the new feature with 30 subjects. App nominated as "Best student Experience App" by sponsor TripAdvisor on demo day.

PROJECTS

Reinforcement Learning Algorithms in Windy Gridworld — July 2020 to Current
Developed 5 different RL algorithms (Monte Carlo, SARSA-1, SARSA-n, Q-learning, N-step Q-learning) from scratch using the OpenAI windy gridworld environment.

SF Bay Area Loan Website — Dec. 2019 to Jan. 2019
- Developed website for a Bay Area loan manager to automate customer information collection.
- React.js + Flask to develop a modern UI and backend that processes and sends the information of customers to our client, a loan manager. Deployed app on Heroku.

Simpy — Jan. 2020 to Current
- Simpy provides a deeper insight to how Spotify users music taste overlap with their friends as well as a way for users to meet strangers that share similar music taste.
- Developed using React.js + Express.js using MongoDB and Spotify Web API

SKILLS & INTERESTS

LANGUAGES: Python, Javascript, Golang, Java, C++, Bash, Swift
FRAMEWORKS & TOOLS: Git, Node.js, React.js, Express.js, Native Android/iOS Development, GraphQL, Flask, Kubernetes, Docker
INTERESTS: Weightlifting, Basketball, Reading Memoirs, Lyrical Rap, Cooking Steak