# Bixia Deng

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## Education

**University of California, Irvine** — Irvine, CA
*Bachelor of Science in Computer Science GPA: 3.84/4.0* — *2019-Present*

**City College of San Francisco** — San Francisco, CA
*Associate Degree for Transfer in Mathematics GPA: 3.80/4.0* — *2017-2019*

- **She Who Codes Club Treasurer**:
  - **Events**: Organized technology field speaker events on campus and participated in SF Hacks and Flutter WWC hackathons and conferences (e.g., Oracle OpenWorld 2018, Developer Weeks).
  - **Club Webpage**: Implement club webpage with information about past events and contact information, meeting time, and mission of our club.

## Projects

**Fabflix** — UC Irvine, CS122B
*Full Stack Web Application* — *Apr 2021 - Present*

- **RESTful API**: Implement RESTful API with JavaServlet, MySQL database management, Apache Tomcat for deployment, and AWS instance as server.
- **JavaScript**: Implement with JavaScript, using AJAX for HTTP Request to the back-end server.
- **Android App**: Integrate to Android platform using Java, App includes Fuzzy Search, Full-Text Search, and auto-complete.
- **User Validation**: Increase scalability and security by adding reCAPTCHA, sessions, encrypted password and HTTPS.

**Let's Fika** — UC Irvine, CS180
*Capstone Project* — *Jan 2021 - Present*

- **NodeJS**: Implement with RESTful API with NodeJS, MongoDB Atlas for database management, and Heroku for deployment.
- **React**: Implement with React for both user flow and administration content management.

**Pixel Jump** — UC Irvine, CS175
*Project in Artificial Intelligence with Malmo* — *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**: The algorithm 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**: Jumping simulation is based on the 3D projectile motion calculation.

## Experience

**CCSF CS Department** — San Francisco, CA
*Teacher Assistant* — *Aug 2018 - May 2019*

- **Python Tutoring**: Assisted students with basic Python syntax.
- **Java Tutoring**: Held office hours for tutoring students in Java fundamental concepts like inheritance and polymorphism.
- **Assignment Grading**: Graded student's homework assignments both in Java and Python courses.

## Skills

**Languages**: Java, Python, C++, C, SQL

**Technologies**: NodeJS, React, PPO, MongoDB, Flask