

# Jeremy Louie

Software Engineer with a passion for developing and delivering products.  
Proven ability to adapt to new environments and produce meaningful results

## EXPERIENCE

### Oma Robotics

San Jose, CA

Software Engineer

11/2022 - 08/2023

- Worked closely with Embryologists, Robotics Engineers, and Machine Learning Engineers to improve in-vitro fertilization (IVF) success rates using artificial intelligence and robotics
- Improved success and accuracy of robotics routines by implementing pipette calibration C++ algorithm
- Automated manual injection of spermatozoa into oocyte by developing automated C++ robotics routine
- Achieved fine-control of spermatozoa extraction by implementing C++ stepper motor API
- Designed and implemented new front-end interface to display spermatozoa healthiness and motility classifications using Qt and C++
- Developed real-time analytic monitoring platform to quickly diagnose issues from software deployed within nationwide clinics using New Relic
- Automated neural net data collection pipeline using Python and AWS S3

### Juni Learning

San Francisco

Computer Science Instructor / Hiring Manager

07/2022 - 12/2022

Computer Science Instructor

09/2020 - 06/2021

- Screened candidates and conducted live-teaching interviews to assess potential instructors
- Privately tutored students in Python, Java, and C++ introductory to advanced data structure courses
- Provided daily student progress reports and learning assessment updates to parents
- Launched first-ever iOS Programming club to teach students about mobile programming

### Pocket Racers @ UCLA

Los Angeles, CA

Web Developer

11/2021 - 10/2022

- Worked closely with supervisor to promote affordable autonomous RC cars by overhauling website
- Designed and developed new Pocket Racers static website using HTML, CSS, and JavaScript
- Reduced website maintenance costs by 100% by migrating from Squarespace to GitHub Pages
- Implemented consensually tracked user data using JavaScript and Google Analytics Reporting API
- Enabled real-time Deep Reinforcement Learning by porting over Robot Operating System from Raspberry Pi to Jetson Xavier NX

## CONTACT

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<https://jeremylouie.netlify.app/>

<https://github.com/jsethlui>

## EDUCATION

University of California, Los Angeles  
Mathematics of Computation (B.S)

## SKILLS

### Languages

C++, Python, Java, Bash, HTML, CSS, JavaScript, MySQL

### Tools & Frameworks

Git, Qt, React, Vite, Mantine

### Platforms

Atlassian, GitHub, Netlify, New Relic, Amazon Web Services, Google Cloud

## PROJECTS

### Personal Portfolio

Personal website developed to feature my professional experience, and learn more about web development. Built in React, Vite, Mantine, CSS, and deployed on Netlify

### Zoomie Roomies

Dedicated web app platform that connects postgraduate students with roommates with similar interests. Frontend built in React and CSS, backend built with NodeJS, and deployed on Heroku

### Runge Kutta Analysis

Research project analyzing two RK methods (written in Python) against two different ODE's. Built in Python and Jupyter Notebook