

Jackie Pei

jackiepei@berkeley.edu

(949) 313-8175

[LinkedIn](#)

[GitHub](#)



EDUCATION

University of California, Berkeley

Aug 2020 – May 2024

B.A. Computer Science, Data Science Minor | 3.82 GPA

Relevant Coursework: Data Structures, Algorithms, Computer Architecture, Full Stack Development, Database Systems, Machine Learning, Probability & Random Processes, Data Science

Fall 2023 Coursework: Operating Systems, Programming Languages & Compilers, Artificial Intelligence for Healthcare

WORK EXPERIENCE

Northrop Grumman – Dev Ops Intern

May 2023 - August 2023

- Built VMWare virtual network with Windows Active Directory domain in an air-gapped environment
- Stood up a repository server containing dependencies that other VMs on the network could install packages from
- Testing the upgrade of a deployed system from RHEL 6 to 7 using Spacewalk and Ansible scripts

Squishy Robotics, BEST Lab – Research Assistant

January 2023 - Present

- Predict and classify the presence of methane gas leaks from a video dataset using a Convolutional Neural Network
- Data pre-processing: extracted images from videos & performed background subtraction to reduce noise
- Improve model accuracy by using validation to adjust network parameters/layers & adding sample and class weights

UC Berkeley EECS Department - Teaching Assistant

August 2021 - Present

- CS 61A, CS 186 (Structure and Interpretation of Computer Programs, Introduction to Database Systems)
- Teach weekly lab and discussion sections of 40 students each + answer questions online and during office hours to debug student assignments & answer conceptual questions
- Create course content/assignments and manage ~30 course tutors by holding weekly meetings & 1-on-1 check-ins
- Average teaching effectiveness rating of 6.4/7.0 based on student evaluations

AFX Tech - Frontend Developer

September 2022 – December 2022

- Developed the roster web application (Python, JavaScript, Vue.js) for AFX Dance at Berkeley
- Created pages that display team information & filter ~1000 dancers' information for auditions, team switches

PROJECTS

Foodstagram

Spring 2023

- Worked in a team of 8 to build a web application that displays recipes based on user-inputted ingredients
- Incorporates calls to the Spoonacular API, a React frontend for login, search, recipe pages & a local MongoDB backend storing user information and saved recipes

Gitlet

Spring 2021

- Designed and implemented a version-control system (subset of Git) from scratch in Java
- Used a combination of data structures, file persistence and hashing to support Git commands including: init, add, commit, remove, branch, checkout, log, status, merge

Rookie DB

Fall 2022

- Building upon a skeleton to create an implementation of a database management system (Java)
- Implemented support for B+ tree indices, efficient database join algorithms, query optimization, database recovery, and concurrent execution of transactions

SKILLS

Languages: Python | Java | JavaScript | C | RISC-V Assembly | Lisp/Scheme | SQL

Tools + Technologies: Git | Linux | VSCode | Unit Testing | Agile/Jira | APIs | VMWare | MongoDB | HTML | CSS | ReactJS | pandas | NumPy | Matplotlib