

# PETER CHOI

Berkeley, CA | peterchoi7250@berkeley.edu | (925) 594-9156 | github.com/PeterChoi7

## EDUCATION

University of California, Berkeley

Expected Graduation: May 2025

Bachelor of Arts in Computer Science, Minor in Data Science

**Coursework:** *Data Structures, Efficient Algorithms and Intractable Problems, Operating Systems and Systems Programming, Introduction to Artificial Intelligence, Machine Structures, Structure and Interpretation of Computer Programs, Discrete Mathematics and Probability Theory*

## SKILLS

- **Technical:** Python, Java, JavaScript, C, R, SQL, HTML, Tableau, GitHub, Azure, ADO
- **Certificate:** IBM Full Stack Software Developer Professional Certificate, The Certificate in Entrepreneurship and Technology
- **Languages:** Fluent in English & Korean

## PROFESSIONAL EXPERIENCE

CS61BL (Data Structures) Course Staff

Jun. 2023 – Present

Academic Intern & Lab Assistant

Berkeley, CA

- Developed and delivered interactive lab sessions to ~40 students, resulting in an increase of 25% in their project completion
- Designed a new lab exercise focused on data structures and algorithms, and received positive feedback from students/instructors
- Revamped course materials by creating interactive Java, Scheme, SQL, and Python coding exercises and mastered the contents

Brooklyn Nets Project

Feb. 2022 – May 2023

Sports Analytics at Berkeley

Berkeley, CA

- Analyzed factors that lead to optimal player development consistent with the Nets' roster using Data and Computer analytics
- Employed a computer vision model to analyze players using images of in-game player shooting form and movement on the court
- Presented areas of improvement, assess strengths and weaknesses of individual players to the recruiting of officer at the Nets

Fingenic, Inc.

Aug. 2022 – Feb. 2023

Software Developer Intern

San Francisco, CA

- Deployed microservices with an implementation of Clean Architecture to structure codebase and facilitate efficient reusability
- Collaborated with a partner to engineer and deploy a fully functional web application utilizing Django and various APIs
- Constructed automated data ingestion from service utilizing Rest APIs to populate database every custom amount of time
- Developed a front-end software system in JavaScript that seamlessly integrated with backend APIs across the microservices

## PERSONAL PROJECTS

Gitlet (Java)

Apr. 2022

<https://drive.google.com/drive/folders/19tOdXUBsoZvoX02qJaZIm8tD5HGjczhI?usp=sharing>

Berkeley, CA

- Built a version control system that saves, adds and commits changes in tracked file to the git repository similar to GitHub
- Employed SHA-1 encryption system to track files with identical file names but different file contents to insure safe commit
- Created a design of tree branches to enable the functions of reverting to user-picked files, and merging files in different branches
- Implemented Dijkstra's and Kruskal's Algorithm to successfully merge files within different branches of the git system

Snake (C)

Mar. 2022 – Apr. 2022

<https://drive.google.com/drive/folders/134FhnGn2L6qI3BRXPvpryOvXlyl7MhJX?usp=sharing>

Berkeley, CA

- Developed a snake game simulator in C, implementing movement rules, collision detection, and fruit consumption mechanics
- Utilized a game\_state\_t struct to store game state, including the game board, number of rows, and an array of snake\_t structs
- Demonstrated proficient memory management, ensuring optimal performance and preventing memory leaks during the game

Sorting Algorithm Visualizer (Python)

Aug. 2022 – Sep. 2022

[https://drive.google.com/drive/folders/1hbjsH9qbl\\_pz6b84PRO-LyHmYccyfb3-?usp=sharing](https://drive.google.com/drive/folders/1hbjsH9qbl_pz6b84PRO-LyHmYccyfb3-?usp=sharing)

Berkeley, CA

- User-friendly program with an implementation of various sorting algorithms to demonstrate runtime and the process of sorting
- Integrated Pygame to visualize the sorting blocks and implemented buttons for users to adjust sorting time, algorithms, and size
- Demonstrated Bubble Sort, Insertion Sort, Selection Sort, Quick Sort, Merge Sort and Radix Sort through movement of blocks

## ACTIVITIES

Treasurer, Secretary, Standards Committee

Aug. 2021 – Present

Phi Kappa Tau & Interfraternity Council

Berkeley, CA

- Treasurer - Managed the fraternity's budget of \$30,000, allocating funds to various social events and philanthropic causes
- Secretary - Organized and executed weekly meetings, resulting in a 90% attendance rate among members
- Standards Committee - Coordinated with a team of 15 members to enforce new standards for all fraternities on campus

## INTERESTS

- Soccer, Golf, Poker, Rock Climbing, Golden State Warriors, Live Music, Marvel Cinematic Universe, Snowboarding, Traveling