

Oliver Yu

(650) 704-1374 • oliveryu@berkeley.edu • www.linkedin.com/in/oliver-yu11 • Berkeley, CA

EDUCATION

University of California, Berkeley | Berkeley, CA

May 2023

Bachelor of Science, Electrical Engineering and Computer Science

GPA: 4.00

Coursework: Data Structures (A+), Structure/Interpretation of Computer Programs (A+), Designing Information Systems and Devices I & II (A, A+), Discrete Mathematics & Probability (A), Efficient Algorithms & Intractable Problems, Computer Architecture

WORK EXPERIENCE

Academic Student Employee

Jun 2021 – Present

University of California, Berkeley | Berkeley, CA

- Facilitate and teach weekly discussion sections for 500+ students in EECS 16B (cover topics such as differential equations, feedback control systems, signal processing, machine learning, circuit design)
- Collaborate with 20 other course staff members to develop and review content for discussion worksheets
- Provided 30+ students with personalized attention and academic support for CS 61BL (Data Structures) during daily remote labs

Academic Tutor

Jun 2020 – Aug 2021

Tutorfly, Inc. | Los Altos, CA

- Increased course grades and considerably improved SAT and AP scores by creating personalized curriculums
- Planned and provided 1-on-1 tutoring sessions in various subjects for 8+ students ages 6-18

PROJECTS

Voice-Controlled Robotic Car (powered by MSP Launchpad)

- Implemented closed-loop feedback and tuned control variables for straight driving and turning
- Constructed 3.3V/5V voltage regulator circuits, low-pass filter, biasing circuit, & non-inverting amplifier to process mic board output
- Coded a speech classification algorithm in C++ by processing voice sample data matrices with SVD and PCA

Git-let

- Programmed a Git version control system in Java with the ability to save, delete, merge, pull, and push files
- Applied knowledge of graphs, breadth first search, and hashing to create an efficient directory structure for look-up and saving
- Implemented persistence with Serializable and java.io.File to create and store files, file contents, and commits across program calls

2D World Generator

- Developed pseudo-random world generator of connected rectangular rooms and hallways using a binary tree algorithm in Java
- Enabled ability to interact with avatar in the graphical interface via command line and keyboard using StdDraw class
- Used serialization to allow user to save and load the current state of the world across program calls

Scheme Lisp Interpreter

- Designed and coded a read-eval-print loop to interpret and evaluate Scheme expressions in Python
- Parsed input into nested linked list structure, recursively evaluated operators & operands, and outputted value of the entire expression

LEADERSHIP AND ACTIVITIES

Senior Associate Mentor

Jan 2021 – Present

Computer Science Mentors | Berkeley, CA

- Taught weekly sessions of 5 students for CS 61A to help develop critical thinking and problem-solving skills
- Worked with 20 other mentors to provide training for new mentors, lead exam prep sections, create/review content for worksheets

School Board Trustee

Aug 2018 – Jun 2020

Mountain View-Los Altos Union High School | Los Altos, CA

- Represented 2,000+ students on school board by communicating consistently with school board, superintendent, & school admin
- Impacted important school board decisions regarding bell schedule, standardized testing, curriculum, COVID-19 grading policy
- Organized petition to Los Altos City Council for more accessible student parking that gained 300+ signatures from student body

SKILLS

Technical: Python, Java, C, Numpy, Data Structures, Scheme, SQL, RISC-V, HTML/CSS, LaTeX

Languages: Advanced in Mandarin, Spanish

Interests: Teaching, Volunteering/Community Service, Cooking, Running, Reading, Jigsaw Puzzles