

EDUCATION

University of California, Berkeley | Fall 2013 – Fall 2017 (expected) | Computer Science, B.A. and Cognitive Science, B.A.

Selected Coursework (Completed | In Progress):

Structure and Interpretation of Computer Programs (CS 61A), Discrete Math and Probability Theory (CS 70), Data Structures (CS 61B), Linear Algebra and Differential Equations (MATH 54), Great Ideas in Computer Architecture (CS 61C), Introduction to Artificial Intelligence (CS 188), *Efficient Algorithms and Intractable Problems* (CS 170), *Introduction to the Internet: Architecture and Protocols* (CS 168)

PROJECTS

Track 158: Taxis (Python, Max)

[repo: <https://github.com/emilytsai/track158-taxis>]

- Unpacked polyline-encoded data containing the taxi's movement and trip information over the course of 24 hours and sent timed OSC bundles of data to Max Cycling '74.
- Created unique sequences of sounds that represent the taxi's paths by manipulating the dataset information to alter frequency, waveform, and amplitude.

Cal Day Scheduler (Ruby on Rails)

[repo: <https://github.com/emilytsai/project-calday>]

- Designed and developed a website for student organizations to easily create and share events, and for students and visitors to view, save, and organize their own personalized schedules for Cal Day events.

Gitlet—CS 61B (Java)

- Built a miniature version-control system based on Git that saves backups of files and enables users to view, work on, and restore different versions of saved files using basic commands: commit, checkout, log, branch, and merge.

EXPERIENCE

Computer Science Department, UC Berkeley

Undergraduate Student Instructor, CS 61A

08/2016 – Present

- Teach discussion and lab sections for students in an introductory programming course, covering a range of topics including abstraction, recursion, OOP, and data structures.
- Hold office hours and answer student questions on course material and assignments.

Computer Science Department, UC Berkeley

Tutor | Mentor, CS 61A

06/2015 – 05/2016

- Strengthened student understanding of core programming concepts and technical skills by providing individualized guidance, conducting weekly tutoring sessions, and offering academic support.
- Improved student performance on their implementation of fundamental algorithms and code-writing efficiency by assisting students with debugging their homework/projects and by grading students' project compositions.

The Daily Californian

Online Developer

02/2016 – 05/2016

- Provided upkeep for the dailycal.org framework in order to establish and enhance the online presence of The Daily Californian newspaper.
- Created new and interactive web pages to equip the newspaper with its platform for online journalism.

LEADERSHIP

REACH! Asian/Pacific Islander Recruitment and Retention Center

Program Coordinator

09/2013 – 05/2015

- Organized mentorship events dedicated to providing resources for higher education for over 200 high school students from low-income, under-resourced communities.
- Trained and developed skills in the intern and mentor cohorts. Increased organizational efficiency, collaboration, and productivity by effectively delegating/overseeing responsibilities and fostering teamwork.

SKILLS

Languages	Python, Java, HTML, CSS, (Knowledge of: C, JavaScript, PHP, Ruby, SQL)
Frameworks	Ruby on Rails
Tools/Technologies	Git, Max, LaTeX, Lightroom