Emily Tsai

emily.tsai@berkeley.edu | (760) 628 – 5859 | emilytsai.me

EDUCATION

University of California, Berkeley | Expected Graduation: Dec. 2017 | Computer Science, B.A. & Cognitive Science, B.A.

Selected Coursework:

Structure and Interpretation of Computer Programs, Discrete Math and Probability Theory, Data Structures, Linear Algebra and Differential Equations, Computer Architecture, Artificial Intelligence, Efficient Algorithms and Intractable Problems, Internet: Architecture and Protocols

PROJECTS

Track 158: Taxis (Python, Max) [github.com/emilytsai/track158-taxis]

- Crafted a program that creates unique sequences of sounds representing a NYC taxi's path over 24 hours
- Sent timed OSC bundles of polyline-decoded taxi trip data to Max Cycling '74 and manipulated dataset information to direct alterations in frequency, waveform, and amplitude

Cal Day Scheduler (Ruby on Rails) [github.com/emilytsai/project-calday]

- Designed and developed a model website for student organizations to easily create/share events and students/visitors to view, save, and organize personalized schedules for Cal's welcome day events

The Ink Initiative (HTML, CSS, JavaScript) [ink.dailycal.org]

- Implemented the Ink Initiative webpage which served as a portal of information for *The Daily Californian* newspaper's campaign to gather student support on initiating a fee to sustain its operations

Gitlet—CS 61B (Java)

- Built a mini version-control system based on Git that backs up files and enables users to view, edit, and restore different versions of saved files using basic commands: commit, checkout, log, branch, and merge

EXPERIENCE

Electrical Engineering and Computer Science Department, UC Berkeley

Undergraduate Student Instructor 08/2016 – Present

- Teach discussions, lab sections, and hold office hours for students in the introductory programming course, CS 61A, covering a range of topics including abstraction, recursion, OOP, and data structures
- Collaborate with course staff to review, revise, and grade assignments and exams aimed at enhancing student understanding of key concepts and algorithms

Tutor & Mentor 06/2015 – 05/2016

- Strengthened student understanding of core programming concepts and technical skills by conducting weekly tutoring sessions as well as providing both group and one-on-one academic support
- Improved student performance on their implementation of fundamental algorithms and code-writing efficiency by assisting students with debugging homework/projects and grading students' project composition

The Daily Californian

Online Developer 02/2016 – 05/2016

- Created new web pages and provided upkeep for the dailycal.org framework to further establish, equip, and enhance the online platform of *The Daily Californian* newspaper

Genes and Environment Laboratory, UC Berkeley School of Public Health

Research Assistant 02/2014 – 07/2015

- Carried out lab experiments and analyzed experimental data to explore the effect of environmental exposures on later-life development of cancer/diseases
- Performed literature searches among various academic journals to gather solutions for improved experimental procedures and collect data from related projects

LEADERSHIP

REACH! Asian/Pacific Islander Recruitment and Retention Center

Program Coordinator 09/2013 – 05/2015

- Organized mentorship events that provide traditionally under-represented students with resources to higher education for over 200 high school students from low-income, under-resourced communities
- Trained and developed intern and mentor cohorts by increasing organizational efficiency and collaboration and delegating/overseeing responsibilities of interns and mentors

SKILLS

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