Emily Tsai

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EDUCATION

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

PROJECTS

Track 158: Taxis (Python, Max)   [repo: https://github.com/emilytsai/track158-taxis]
- Unpacked polyline-encoded data that tracks a NYC taxi's total trips spanning the course of 24 hours. Sent timed OSC bundles to Max Cycling '74 containing data on the taxi's movement and trip information.
- Created unique sequences of sounds that represent the paths of the taxis by manipulating the dataset information. Scaled different pairs of longitude and latitude coordinates to alter frequency and waveform; used the number of passengers in the cab during each trip leg to emphasize the depth of the sound's amplitude.

Cal Day Scheduler (Ruby on Rails)   [repo: https://github.com/emilytsai/project-calday]
- Crafted a website for student organizations to easily create and share events, and for students to view, save, and organize their own personalized schedules for Cal Day events.
- Designed and implemented the models, views, and controllers for user registration, event creation, and event scheduling.

Gitlet—CS 61B (Java)
- Implemented a miniature version-control system that saves backups of directories of files and enables users to view, work on, and restore different versions of saved files.
- Employed the system's main functionalities, including: commit (saving a backup of files), checkout (restoring a backup of files), log (viewing the history of backups), branch and merge (allowing multiple users to work on the same files and then combine their changes).

EXPERIENCE

Computer Science Department, UC Berkeley
Tutor, Mentor   06/2015 – Present
- Strengthen student understanding of core programming concepts and technical skills by providing individualized guidance, weekly tutoring sessions, and academic support.
- Improve 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 – Present
- Provide upkeep for the dailycal.org framework in order to establish and enhance the online presence of The Daily Californian newspaper.
- Create 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. Effectively delegated responsibilities and oversaw intern roles to enhance their work independence.
- Increased organizational efficiency, collaboration, and productivity by fostering teamwork and establishing open communication among team members.

SKILLS

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