

# EMILY WANG

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## EDUCATION

UNIVERSITY OF CALIFORNIA, BERKELEY

expected graduation May 2022

*Bachelor of Science in Electrical Engineering & Computer Science; 3.95 GPA*

- » Member of IEEE - Eta Kappa Nu (HKN), National EECS Honor Society
- » Coursework: Data Structures, Algorithms, Machine Structures, Operating Systems\*, Artificial Intelligence\*, Data Science\*, Discrete Mathematics & Probability Theory, Linear Algebra, Multivariable Calculus, Information Devices & Systems

## EXPERIENCE

BERKELEY CODEOLOGY

Feb 2019 - present

*Project Developer*

- » Currently working in a team of six on a full-stack web app for TheMusicConnection, a music tutoring club on campus
- » Completed a personal web portfolio using HTML, CSS, and JavaScript, as well as various React web apps (see projects)

UC BERKELEY EECS DEPARTMENT

Jan - May 2019, Jan 2020 - present

*Academic Intern*

- » Currently lab assisting for CS 61C: Great Ideas in Computer Architecture (Machine Structures)
- » Previously assisted in Berkeley's largest lower-division CS class (CS 61A: Structure & Interpretation of Computer Programs) with assignments and projects during office hours and lab; dedicated ~30 hours over the course of a semester

## ACTIVITIES

BERKELEY ANOVA

*Curriculum Committee Chair*

Feb 2019 - present

- » Mentoring and teaching introductory computer science at under-resourced middle & high schools in Oakland
- » Helping committee members achieve goals of making engaging, creative content for the semester as well as leading the creation of skeleton code and guides for larger projects

ETA KAPPA NU (HKN)

Feb - Dec 2019

*Service Committee Assistant Officer/Member*

- » Created introductory labs and planned community outreach events for local middle & high schoolers interested in EE/CS
- » Tutored for one hour per week and volunteered at HKN-hosted events, including career fairs and course review sessions

## PROJECTS

TheMusicConnection | Python, Pandas

Feb 2020 - Present

- » Created a matching algorithm to efficiently pair tutors with tutees based on instrument and time availabilities
- » Currently working on frontend for a Ruby web app to provide a more user-friendly interface for the club

StockAssistant | React, CSS, Yahoo Finance API

Oct - Dec 2019

- » Created a React web app and implemented logic for a stock game
- » Integrated Yahoo Finance API calls to retrieve relevant stock data and generate graphs

Mandelbrot Fractal Zoomer | C, SIMD Intrinsics, OpenMP

Sept - Dec 2019

- » Implemented struct for complex numbers and methods to evaluate Mandelbrot function on given input
- » Solidified understanding of pointer logic, dynamic memory allocation, and file input/output in C
- » Applied performance optimization techniques (vectorization, parallel computing) to speed up execution by 18x

Random World Generator | Java

Apr 2019

- » Engine that randomly generates valid 2D tile-based maps with hallways and rooms to explore
- » Open-ended assignment to gain experience in the design and development process of a complex, larger-scale project

## SKILLS

### PROGRAMMING

Java	HTML/CSS
Python	Pandas
C	NumPy
React	SQL

### DESIGN

SolidWorks (CAD)
Adobe InDesign
Adobe Illustrator

## AWARDS

UC Berkeley Kraft Award for Freshmen	2018
Future Business Leaders of America	
1st Place E-Business, CA	2018
4th Place Publication Design, National	2017
1st Place Graphic Design, CA	2016