

JESSICA YU

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EDUCATION

University of California, Berkeley

Aug 2018 to May 2022

B.A. Computer Science – Class of 2022

Courses: Operating Systems, Artificial Intelligence, Computer Architecture, Algorithms, Discrete Math, Data Structures

EXPERIENCE

Undergraduate Researcher

Sep 2019 to Dec 2019

Hearst Museum of Anthropology

- Digitized UC Berkeley's collection of archaeological artifacts through photogrammetry.
- Used Metashape and Blender to process and refine models.

CS Course Staff – Tutor

Jun 2019 to present

UC Berkeley EECS Department

- Lead small group tutoring sections of 4-5 students on core course material for Structure and Interpretations of Computer Programs (CS61A) and Computer Architecture and Machine Structures (CS61C) [current].
- Coordinate with TAs to grade projects and exams, staff office hours, and respond to questions on the class forum.

Computer Science Senior Mentor

Sep 2019 to present

UC Berkeley CSM

- Volunteered time to tutor students on CS concepts for the largest student-run teaching organization on campus.
- Lead 5 first-time mentors in pedagogy and coordinate video walkthroughs of challenging problems
- Taught students in the following courses: Computational Structures in Data Science (CS88), Computer Architecture (CS61C), Structure and Interpretation of Computer Programs (CS61A) [current]

PROJECTS

Enigma

Java

Data Structures

Spring 2020

- Performs all computational aspects of the Enigma machine used by the German military during WWII.
- Interface takes in textual input and returns encoded / decoded text.
- Approx. 1000 lines.

Command-Line Game – Lines of Action

Java

Data Structures

Spring 2020

- Developed a game that simulates the checkerboard board game Lines of Action using **terminal commands** and **GUI input**
- Approx. 1000 lines.

Image Rendering – Mandelbrot

C

Computer Architecture

Fall 2019

- Generates a visual representation of the Mandelbrot function. Worked with **memory** and **file I/O**
- Approx. 500 lines.

CPU Logic Design

Logisim

Computer Architecture

Fall 2019

- Designed a low level datapath from scratch in Logisim that is capable of running the **RISC-V** instruction set
- Designed a system of controls to differentiate behavior of CPU based on distinct instructions
- Streamlined visual and logical components and accounted for control hazards

TECHNICAL SKILLS

Software Development: C, Java, Python, Scheme, RISC-V