LULU YU

(310) 469-3975 | lulu.yu@berkeley.edu | luluyu.me | linkedin.com/in/lulu-yu

EDUCATION

University of California, Berkeley *Expected Graduation: May 2022*

Major: Bachelor of Arts in Computer Science, Data Science

Relevant Coursework: Data Structures, Principles and Techniques of Data Science, Structure and Interpretation of Computer Programs, Designing Information Devices and Systems, Multivariable Calculus, Discrete Math and Probability

PROJECTS

Retro Arcade Machine — *Lua* April 2020

- Programmed traditional retro games Pac-Man, Snake, Pong, and a custom street fighter inspired game with multiplayer functionality for a custom designed 3' x 4.5' wooden Retro Arcade Machine
- Designed algorithm for ghosts to chase Pac-Man and implemented physics for ball collision in Pong
- Designed player selection, help menu, and game over screen on Figma in the traditional pixelated retro style
- Games integrated on a Raspberry Pi 4 in programming language Lua using the Love framework

The Deque API — *Java* September 2020

- Implemented two deque data structures, one linked list, one array based, both with dynamic sizes that can be expanded or contracted on both ends, and a randomized test based autograder to verify implementation
- Utilized interfaces, classes, recursion, booleans, and higher order functions to apply and test the deques

Scheme Interpreter — *Python* November 2019

- Developed a Python based Scheme interpreter that optimized runtime in constant space using tail recursion
- Utilized a Read-Evaluation-Print loop to parse and evaluate user-inputted text in a Scheme context supporting operations, list manipulation, and lambda expressions

Ants Vs. SomeBees — *Python* October 2019

- Created a tower-defense game inspired by Plants Vs. Zombies that combined functional and object-oriented programming paradigms to implement game logic and specifications
- Defined objects and classes and used inheritance and methods to implement 14 unique ant types
- Project involved extending and testing a large program specifically with added features and unit tests

EXTRACURRICULARS

Theta Tau Professional Engineering Fraternity — *Philanthropy Chair* January 2020 - Present

- Organized partnership with the Himmati Foundation to provide free PPE to Berkeley homeless shelters and UC Berkeley's ONETrack International chapter to fundraise donations to alleviate the global orphan crisis
- Hosted Coffee and Conversations, a virtual event advocating mental health/suicide awareness; fundraised for the American Foundation for Suicide Prevention during Suicide Prevention Awareness Month 2020

Cal Mentors September 2020 - Present

- Virtually tutored ten high school students from the San Leandro Unified School District in algebra with a partner for 2 hours every week to support them academically and help them transition to virtual learning
- Managed feedback of over 75 mentors and tracked mentee attendance, automated Zoom link distribution

SKILLS

Technical Languages: Python, Java, SQL, HTML/CSS

Technologies: Git, IntelliJ, NumPy, Pandas, Seaborn, LaTeX, Jupyter Notebook

ABOUT ME

- Fluent in English, conversationally fluent in Mandarin Chinese
- Hobbies include badminton, raising houseplants, journaling, painting, and making future travel plans
- 2016 Road to Rio Olympic Badminton Qualifying Tournament Women's Doubles Finalist
- 2019 National Merit Scholar Finalist, awarded by College Board