

EDUCATION

- **University of California, Santa Cruz** Santa Cruz, CA
Bachelor of Science in Computer Science; GPA: 3.88 / 4.0 Oct. 2020 – Present
- **Relevant Coursework:** Data Structures and Algorithms, Computer Systems and C Programming, Computer Systems and Assembly Language, Programming Abstractions in Python, Discrete Mathematics, Probability and Statistics for Engineers
- **Awards:** Dean's Honors List (3 contiguous quarters)
- **Activities and Organizations:** Tech4Good, Tau Kappa Epsilon, College Scholars Program, ACM

WORK AND LEADERSHIP EXPERIENCE

- **Tech4Good Laboratory** Santa Cruz, CA
UI Components Team Members September 2021 - March 2022
 - Worked in a 4-member team to build responsive web pages for research in social computing
 - Collaborated with designers through Figma to design and update existing web pages, increasing user experience by 11%; analytics were derived from surveys sent out to users
 - Implemented flexbox paradigm and responsive design in components that were previously fixed-width
- **VIP (Very Important Player) Club** Lake Forest, CA
Vice President September 2018 - March 2020
 - Coached developmentally disabled children play soccer under the AYSO VIP division; led team to finals
 - Raised money and utilized funds to promote the club at rush events; members increased by 8-10 yearly
 - Acquired valuable skills through coaching including: patience, persistence, and sincerity
- **El Toro High School** Lake Forest, CA
Algebra I Peer Mentor August 2019 - March 2020
 - Tutored fundamental Algebra I concepts to those who struggled in a class of 30 freshmen students
 - Designed engaging Kahoot and group activities that facilitated a 3% increase in following test averages

PROJECTS

- **RSA Key Generator, Encryptor, and Decryptor - C:**
 - Built public and private key generators and an RSA encryptor and decryptor using the mathematical formulas behind RSA encryption
 - Utilized GNU's Multiple Precision Arithmetic library to handle arbitrarily large numbers that C's standard library can't
 - **Tools:** GNU MP Library
- **Motion Detector - Python:**
 - Employed the sliding window mean and standard deviation methods to detect motion in a stream of images
 - Motion is detected if a pixel's RGB value is out of range based on the image's discounted average and standard deviation
 - **Tools:** NumPy, Matplotlib
- **Comparison of Sorting Algorithms - C:**
 - Implemented and compared four sorting algorithms: Insertion Sort, Shell Sort, Heap Sort, and Quick Sort
 - Sorts a random number array of an inputted size with a specified sorting algorithm of the user's choosing (or all)
 - Produces statistics on the number of moves and compares to compare each algorithm on an arbitrary array

SKILLS

- **Languages:** Python, C/C++, JavaScript, HTML, CSS, MIPS Assembly **Technologies:** Unix, Git, Figma