# Neil Bisht

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### **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, Programming Abstractions in Python, Database Management, Probability and Statistics for Engineers
- Awards: Dean's Honors List (4 quarters)
- Activities and Organizations: Tech4Good, Tau Kappa Epsilon, College Scholars Program, ACM

## RELEVANT EXPERIENCE

# JP Morgan Chase & Co

Plano, TX

Data For Good Extern

April 2022 - April 2022

- Selected as one of 120 students from over 800 applicants to partake in a hackathon aimed at aiding agricultural foreign investment; built models to maximize investment while minimizing climate damage
- Produced data visualizations to locate and analyze trends with Python's pandas and Matplotlib libraries

# Tech4Good Laboratory

Santa Cruz, CA

Web Developer (UI Components team)

September 2021 - March 2022

- o 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
- o Acquired valuables skills through coaching including: patience, persistence, and sincerity

### PROJECTS

### • RSA Key Generator, Encryptor, and Decryptor - C:

- $\circ\,$  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
- o Tools: NumPy, Matplotlib

#### • Comparison of Sorting Algorithms - C:

- o 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)
- $\circ$  Produces statistics on the number of moves and compares to compare each algorithm on an arbitrary array

#### SKILLS

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