

Neil Bisht

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EDUCATION

UC Irvine – Irvine, CA

Sep. 2022 - June 2024

Bachelor of Science in Computer Science, GPA: 3.8

Activities and Organizations: Tech4Good, UCI Design, College Scholars Program, ACM, Tau Kappa Epsilon, Sigma Pi

Relevant coursework: Software Engineering, Data Structures and Algorithms, Information Retrieval, Database Management, Machine Learning & Data Mining, Operating Systems

EXPERIENCE AND LEADERSHIP

JP Morgan Chase & Co - Data For Good Extern | Plano, TX

Apr. 2022 - Apr. 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 global climate impact
- Produced data visualizations to locate and analyze trends with Python's Pandas and Matplotlib libraries
- Developed and presented a Canva presentation of my team's methodology, analyses, predictions, and results for a board of senior data engineers

Tech4Good Laboratory - Web Developer (UI Components team) | Santa Cruz, CA

Sep. 2021 - Mar. 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 user surveys
- Implemented responsive design and the CSS flexbox paradigm to revamp previously fixed-width components

PROJECTS

Search Engine and Indexer - Python

- Designed and implemented a robust search engine in Python, leveraging information retrieval techniques such as term frequency-inverse document frequency (TF-IDF) scoring, document indexing, and ranking algorithms
- Employed web scraping and HTML parsing utilizing the BeautifulSoup library to extract structured data from web pages, ensuring accurate retrieval of relevant content for indexing
- Developed efficient data structures, including inverted indexes and document frequency calculations, to optimize search performance and enable fast retrieval of search results from a large-scale corpus

RSA Key Generator, Encryptor, and Decryptor - C

- Developed an RSA key generator and encryptor/decryptor, implementing the math behind asymmetric encryption
- Created a solution capable of encrypting and decrypting files of arbitrary size efficiently
- Utilized the GNU Multiple Precision Arithmetic library to handle arbitrarily large numbers that C's standard library cannot accommodate

SurfSender - Python

- Created a Flask web application that extracts weekly surf data from various online sources and generates optimized surf reports
- Developed an intelligent algorithm to curate forecasts of wave heights, ratings, and ideal surfing times for the week
- Implemented the project with the BeautifulSoup library to handle web scraping and data processing efficiently

Comparison of Sorting Algorithms - C

- Implemented and compared four sorting algorithms: Insertion Sort, Shell Sort, Heap Sort, and Quick Sort
- Developed a program that sorts a randomly generated array of numbers, allowing users to select a specific sorting algorithm, or compare all of them
- Produced comprehensive statistics on the number of moves and comparisons made by each algorithm, providing insights into their effectiveness in different contexts

SKILLS

- **Languages:** Python, C/C++, Java, PostgreSQL, HTML, CSS
- **Technologies:** Unix, MacOS, Git, Figma, Notion