



DANICA TANG

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Education

University of California, Berkeley

August 2021 – May 2025

Bachelor of Arts in Computer Science

Berkeley, CA

Relevant Coursework

Data Structures (CS61B), Database Management (CS186), Efficient Algorithms and Intractable Problems (CS170), Foundations of Data Science (Data 100), Computer Architecture (CS61C), Structure and Interpretation of Computer Programs (CS61A), Discrete Math and Probability Theory (CS70), Linear Algebra (Math54), Calculus

Technical Skills

Languages: Python, Java, C, HTML/CSS, JavaScript, SQL, Swift

Technologies: Kubernetes, Docker, Flask, MongoDB, REST APIs, Pandas, Scikit-learn, Seaborn, Matplotlib, Numpy, Jupyter, VSCode, IntelliJ, Git, JUnit, OpenMP, OpenMPI, Grafana, Prometheus, Postman, Figma, Adobe Suite

Work Experience

UC Berkeley, Haas School of Business

August 2023 – Present

Berkeley Artificial Intelligence Research Apprentice

Berkeley, CA

- Conducting research at Berkeley Operations and Behavioral Analytics Lab (BOBA LAB) with Professor Park Sinchaisri on Human-Centered AI for Sequential Decision-Making, presenting and publishing study results in January.
- Refining JavaScript experiment and producing 5+ data visualizations using data cleaning, exploratory data analysis, and clustering methods on 50+ research participants who make charging decisions for an EV based on AI recommendations.

Typeless (Berkeley SkyDeck Ace Program)

January 2023 — May 2023

Backend Software Engineering Intern

Remote

- Configured a containerized back-end for a Docker server using Flask, Python, JavaScript, Kubernetes, Grafana, and Prometheus and learned about scaling. Coded a micro-service that handles mp3 transcriptions for a messaging service.
- Collaborated with product design team to find product-market fit and improve user experience in Figma. Adapted desired front-end visuals into the back-end stack functionalities.
- Conducted literature review on best practices in software development using containerization and wrote guides for future developers on setting up a back-end and performance monitoring.

Projects

Build Your Own World | Java, Large Scale Software Project, Object Oriented Programming

December 2022

- Built an explorable adventure game from scratch using a 2D array game board, with the theme of a robot saving Earth.
- Developed an engine to generate unique maps with randomized walls, rooms, and doors, a player object that can interact with different types of items in the world by pressing different keys, and enemies using search algorithms.
- Maintained clear code organization through using inheritance and object oriented programming and code accuracy through agile development testing methods.

Word History Visualizer | Java, Data Structures

September 2022

- Created back-end implementation of a history of words web visualizer from scratch, mirroring Google's NGram Viewer.
- Parsed word usage data from the Google NGram dataset, implemented custom data structures and depth-first search algorithms for efficient word look up, handled queries and displayed plotted data in visualization.
- Built JUnit tests and randomized tests to test the word data storage in graphs and the etymology outputs.

Leadership Experience

CS Kickstart at UC Berkeley

Fall 2021 – Present

Co-President/Program Director (2021-2022), Director of Alumni Relations (2022-present)

Student Organization

- Organized a week-long summer program introducing 120+ women and non-binary incoming Berkeley students to CS.
- Coordinated a team of 50+ volunteers, developed and taught a tech exploration curriculum, and delegated tasks for planned field trips to Meta, SAP, guest speakers, industry panels, and more.
- Initiated a mentor program with 50+ participants and advising students to help women navigate the tech industry.

Awards and Activities

Awards : The Leadership Award (Top 2.4% Cal Students), UC Berkeley Grace Hopper Scholar (1 of 19 awardees), CS Scholar, SCET Certificate in Entrepreneurship & Technology, Microsoft Resilience 2022 Mentee

Activities: Handmade Jewelry, Guitar, Tennis, Volunteering, Society of Women Engineers, CS Kickstart, Codeology