

KAINOA NISHIDA

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EDUCATION

University of California, Irvine

Double Major in Computer Science and Mathematics

Expected Graduation: 2025

GPA: 3.99 / 4.00

COURSEWORK

Computer Science

- Design and Analysis of Algorithms
- Machine Learning and Data Mining
- Data Structures and Algorithms
- Artificial Intelligence

Mathematics

- Markov Chains and Stochastic Processes
- Algorithmic Game Theory*
- Linear Algebra I and II
- Discrete Mathematics

* Graduate Coursework

SKILLS

Languages: Python, C++, R

Technologies: AWS, SQL, React, Git, MATLAB

General: Algorithms and Data Structures, Game Theory, Probability and Expectation, Machine Learning

EXPERIENCE

Irvine Spatial Neuroscience Laboratory, *Software Developer* | Irvine, CA

June 2024 - Present

- Developed an interactive scheduling service for the Neuroscience Laboratory, improving the efficiency of appointment and contact management by streamlining scheduling into a single platform.

Commit the Change, *Software Engineer and Director of Education* | Irvine, CA

November 2022 - Present

- Developed a volunteer management dashboard for Get Inspired, enhancing clam restoration efforts, and built a communication system for Feeding Pets of the Homeless to efficiently coordinate pet food donations between private sites and the main organization. These projects automated manual processes, improving efficiency for both NPOs.
- Led the onboarding of new members, introducing key software development tools and principles, including frontend design and backend management.

Donald Bren School of ICS, *Learning Assistant* | Irvine, CA

January 2023 - March 2023

- Assisted undergraduate CS students with coding assignments and explained complex programming concepts.

PROJECTS

Algorithmic Experiments of Real-World Phenomena | Python, Matplotlib

Analysis of diameter, clustering-coefficient, and degree-distribution algorithms optimized using self-balancing trees and a graph degeneracy, ran on networks from the Stanford Large Network Dataset Collection, as well as Barabási-Albert and Erdős-Rényi models.



Minesweeper Solver | Python, IntelliJ

Achieved an 83% success rate through recursive backtracking, frontier-splitting, solving constraint satisfaction problems, updating/maintaining equivalence classes, and using a MRV degree heuristic.



Maze Generator and Pathfinder | Python, Tkinter

A Python program that uses randomized depth-first search for maze generation and various graph searching algorithms and recursive backtracking for shortest path identification.



Digital Platform for Get Inspired | React, MySQL, Node.js, JavaScript, Firebase

Developed a digital dashboard for a non-profit's volunteer team, increasing team size by 133% and clam raking by 75%, improving efficiency and scalability.



AWARDS

ICS Honors, Donald Bren School of ICS

July 2024

Fall Book Award, Phi Beta Kappa

November 2023

Regent's Scholarship, University of California, Irvine

July 2022

National Merit Finalist (1580 SAT), National Merit Scholarship Program

June 2022

Dean's List, University of California, Irvine

All Quarters