

Chenkuan (Kevin) Lai

MS computer science student at UCSB.

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EDUCATION

- **University of California, Santa Barbara** Santa Barbara, CA
Master of Science in Computer Science; GPA: 4.0/4.0
Jan 2024 - Present
- **University of California, Santa Barbara** Santa Barbara, CA
Bachelor of Science in Computer Science; GPA: 3.96/4.0
Aug 2020 - Dec 2023

SKILLS

- **Languages:** C++, C, Python, Swift, Java, Javascript, HTML, CSS, SQL
- **Tools:** Git, GDB, React, NumPy, PyTorch, TensorFlow, Docker, Firebase, QEMU, Spring Boot

EXPERIENCE

- **UCSB Department of Computer Science** Santa Barbara, CA
Graduate Teaching Assistant
Sep 2022 - Present
 - Assisted with instruction of Data Structures and Algorithms courses.
 - Covered concepts including discrete math, graph theory and algorithms, hashing, binary search trees, heaps, dynamic programming, divide-and-conquer algorithms, RSA cryptosystem, and NP-completeness.
- **Arista Networks** Santa Clara, CA
Software Engineer Intern
Jun 2023 - Sep 2023
 - Worked with Packet Processing Pipeline team on MAC-layer encryption in Unix-based linecard OS.
 - Reorganized 400 lines of Python code to enable dynamic loading of CLI command handler.
 - Refactored C++ command enqueueing bootstrapper for packet encryption, reducing database space overhead by 50%.
 - Implemented new CLI plugin for inspecting reserved packet counters from MACsec encryption ASIC.
- **AppFolio, Inc.** Santa Barbara, CA
Quality Assurance Engineer Intern
Jun 2022 - Aug 2022
 - Tested React frontend, Ruby on Rails backend, and MySQL database for property management web app.
 - Worked with Kubernetes deployments and Git version control to test deployment migration integrity.
 - Regression test of report generation application to validate refactored code behavior.
 - Hack Day 2022: Created Node.js-based Slackbot to deliver coffee order statistics from Ruby on Rails server.
- **UCSB Department of Psychological & Brain Sciences** Santa Barbara, CA
Game Programmer
Jan 2021 - Feb 2021
 - Developed educational webgame about greenhouse gases for a study of the usage of technology in pedagogical contexts.
 - Implemented user interface in vanilla HTML/CSS, game logic in Javascript, and drag-and-drop interactivity with jQuery.

PROJECTS

- **A Survey of MCMC for Ferromagnetic Spin Systems** Distinction in the Major Program
<https://github.com/ucsb/kevinl-f22-dimap> *Sep 2022 - Jun 2023*
 - Conducted 9 months of research studying Markov Chain Monte Carlo samplers on the ferromagnetic Ising and Potts models.
 - Leveraged coupling heuristic to compare simulated mixing time measurements at critical temperature regimes against existing conjectures and known bounds.
- **Smart Eye Mask** CS190B IoT Systems
https://github.com/ucsb/CS190B-Eyemask-jeffrey_chen *Jan 2023 - Mar 2023*
 - Smart eye mask prototype featuring internet connectivity, programmable alarm, ringtone, remote-controlled user interface, and periodic logging of biometric sensor data to Python Flask server with PostgreSQL database.
 - Wrote C application for Arduino UNO to read sensor data and exchange serialized JSON messages with WiFi module.

VOLUNTEERING

- **Taiwanese American Citizens League - Leading Youth Forward** Milpitas, CA
<https://lyf.tacl.org/> *Oct 2021 - Present*
 - Maintained WordPress website and led evaluation of alternative content management system options for future migration.
 - Contributed to website redesign development on Gatsby/Firebase/Sanity stack, implementing schema for GraphQL queries and styling pages with Material UI.