

XIAOKANG CHEN

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<https://xiaokchenedu.github.io/>

EDUCATION

University of Hawai'i at Mānoa

Master, Electrical Engineering

Honolulu, Hawaii

Aug 2024 – Expected Graduation Fall 2025

University of Hawai'i at Mānoa

Bachelor of Science, Computer Engineering

Honolulu, Hawaii

Aug 2021 – Dec 2024

EXPERIENCE

Department of Electrical and Computer Engineering

Teaching Assistant

Honolulu, Hawaii

Jan 2025 – Present

- Teaching assistant for ECE 160 (Programming for Engineers - Python) and ECE 367L (Computer Networks Laboratory - C)
- Help students with their lab work
- Grade students' lab work

Cyber Security Training

Office of Naval Research ROTC Cyber Security Training Program

Honolulu, Hawaii

Sep 2022 – May 2023

- Learn the basic of Linux and security tools to examine computer and network security.
- Work on computer and network security, drones, Internet of Things (IoT), cloud, and mobile systems.
- Virtualization through type 2 hypervisor.

PROJECTS / PROGRAM

EM Medical Device

Jan 2025 – Present

- Developing an electromagnetic device for non-invasive detection of lung water levels in the body
- Creating detailed 3D models of human lung and heart anatomy for electromagnetic simulation purposes

Antenna Array Beamforming | GitHub | IEEE Paper

Aug 2024 – Present

- Developed a 7-element antenna array receiver designed for beamforming, which adjusts the phase of received signals to enhance directional reception and improve the accuracy of determining the source element's location
- Implemented signal processing algorithms in MATLAB to process data captured from eight individual antennas using SBench6
- Contributed to software development for the radar system implementation in a Wireless Monitoring System for vital sign measurement

Aerospace Technologies: Team Laniākea | <https://www.teamlaniakea.com/>

Jan 2024 – Aug 2024

- Create a functional, low cost satellite to take a picture of the Hawaiian Islands from space.
- Engaged in tasks involving solar cells and antennas.

Shop-Manoa | Website | GitHub

Jan 2024 – Aug 2024

- Developed a comprehensive marketplace web application for UH Manoa community using Meteor and React
- Implemented user authentication, profile management, and item listing features
- Applied responsive design principles and conducted testing using TestCafe

UHM SCADA LAB | <https://uhm-scada-lab.github.io/>

Sep 2023 – Dec 2023

- Designed and implemented a miniature town model to visually represent the principles of two closed-loop systems and one open-loop system.
- Engaged in Raspberry Pi programming using Python, concurrently applying circuit design principles that incorporated relays, motors, water level sensors, and other components.

ALU Project | <https://xiaokchenedu.github.io/projects/ALU.html>

Nov 2022 – Dec 2022

- Created a combinational digital circuit featuring 8 distinct operations, each operating on 4 bits.
- Designed and simulated the 8 different operations using Falstad, and subsequently implemented the combinational circuit in Verilog

TECHNICAL SKILLS

Computing: C, C++, Python, HTML/CSS, Javascript, MATLAB, LaTeX, Verilog, VHDL

Tools: Visual Studio Code, JetBrains, Vim, Git, Linux/Unix, VirtualBox, VMware

Languages: Mandarin (Native), English (Fluent)