

Curriculum Vitae
Hunter Daniel Kanaïela Tze-Cho Muench

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EDUCATION

University of Hawai'i at Manoa

Ph.D. in Electrical & Computer Engineering

Advisor: Dr. Bo-Han Wu

Research areas: Continuous-variable quantum computing, quantum neural networks, Gaussian state preparation, measurement-based quantum computing, quantum sensing, photonics

Honolulu, HI

In Progress

University of Michigan

Master of Science in Engineering in Electrical & Computer Engineering

Concentration in Embedded Systems

GPA 3.65/4.00

Coursework: Probability and Random Processes; Matrix Methods for Signal Processing; Control Systems Analysis and Design; Information Theory; Quantum Computing, Information, and Probability; Embedded Control

Ann Arbor, MI

May 2025

Bachelor of Science in Engineering in Computer Science

GPA 3.83/4.00

Coursework: Data Structures and Algorithms; Introduction to Computer Organization; Theory of Computation; Computer Vision; Machine Learning; Web Design, Development, and Accessibility; Operating Systems; Combinatorics; Network Systems; Quantum Programming

Computer Skills: C/C++, Python, HTML/CSS, JavaScript, PyTorch, Microsoft Office, Microsoft Power Platform, Django, Arduino IDE, PyQt5, Julia, MATLAB, Simulink

May 2024

EXPERIENCE

University of Hawai'i at Manoa

Research Assistant

- Developing a continuous-variable quantum neural network (QNN) framework for learning arbitrary Gaussian states and automating the photonic circuit design
- Implementing a differentiable Gaussian state quantum circuit simulator for use in the QNN framework
- Investigating resource-state generation for measurement-based quantum computing, distributed quantum sensing networks, and graph-encoded photonic sampling

Teaching Assistant, Math 100 – Survey of Mathematics

Aug. 2025 – Dec. 2025

- Supported instruction for undergraduate mathematics coursework through grading, office hours, and student assistance.
- Helped students develop mathematical reasoning, problem-solving skills, and confidence with quantitative concepts.

University of Michigan

Research Assistant in Opri Lab

- Developing a hardware interface for use in deep brain stimulation (DBS) procedure to enable control of stimulation signal control and data collection for research
- Using PyQt5 for the interface, Python to make a wrapper for the probe SDK in C++, and packaging software to allow the interface to be deployed on a single board computer

Lead Graduate Student Instructor for Intro. to Computer Organization

Aug. 2024 – May 2025

- Taught students in a weekly discussion section and lab section about Instruction Set Architectures (ISAs), CPU design, caches, and virtual memory in addition to programming in C and Assembly
- Held weekly office hours to assist students on homework and projects to improve students' understanding of concepts and enhance my skills in explaining the topics
- Worked directly with the professors and admin staff to coordinate logistics for the class and help liaison between the other student staff and the professors

Centene Corporation

Power Platform Developer Intern

- Created a dashboard for the Business Process Automation (BPA) Group to provide a quick way to summarize the current Microsoft Power Platform solutions they are working on

Remote

May – Aug. 2023

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- Learned Microsoft Power Apps and Dataverse as well as other Microsoft Power Platform tools to create the dashboard in addition to understanding the tools the group uses
- Attending consultations with representatives from other departments to understand the BPA's intake and development process for Microsoft Power Platform solutions

University of Michigan

Ann Arbor, MI

Instructional Aide for Intro. to Computer Organization

Aug. 2022 – Apr. 2024

- Taught students in a weekly discussion section and lab section about Instruction Set Architectures (ISAs), CPU design, caches, and virtual memory in addition to programming in C and Assembly
- Held weekly office hours to assist students on homework and projects to improve students' understanding of concepts and enhance my skills in explaining the topics
- Discussed the meeting agenda and student concerns during weekly staff meeting to ensure course is running smoothly and to resolve any issues discovered

Research Assistant (Working under Dr. Xinyu Wang)

May – Aug. 2022

- Developed a top-down enumerative search algorithm to solve the problem of generating TensorFlow code from different inputs and the desired output
- Implemented the algorithm within a tool that works with user specified inputs and returns the generated code after processing the inputs and running the algorithm on the inputs
- Participated in weekly meetings with teammates to discuss algorithm, implementation of the algorithm in Python, and the theory of context-free grammar that underlies the project

ACTIVITIES

Tau Beta Pi – MI Gamma

Sept. 2022 – Present

Advisor

Dec. 2024 – Present

President

Apr. – Dec. 2024

- CEO and COO of the Michigan-Gamma chapter of the Tau Beta Pi Association, responsible for overseeing all chapter meetings and events
- Support all officers and operations through public recognition and by providing necessary resources to ensure significant growth in the chapter
- Oversee the chapter's operations and finances to ensure the long-term wellbeing of the chapter

Campus Outreach Officer

Dec. 2023 – Apr. 2024

- Manage our 1-on-1 tutoring service to support engineering students in the introductory level courses
- Provide service and outreach events for the benefit the community and our organization
- Coordinate with other student organizations and departments to support different outreach events

Publicity Officer

Dec. 2022 – Dec. 2023

- Send out the weekly email to inform the chapter of the events and reminders
- Manage the social media accounts, semesterly photo competition, and calendars for the chapter
- Creates new templates for emails and forms to keep our communication looking professional

Eta Kappa Nu – Beta Epsilon Chapter

Sept. 2021 – Present

Advisor

May 2024 – Present

Treasurer

Dec. 2023 – May 2024

- *Collects payment from companies and members*
- *Manages our bank accounts and payments for different events*
- *Works with the other officers to raise money and manage the chapter's finances*

President

Dec. 2022 – Dec. 2023

- Represent the organization to the University of Michigan, companies, and other organizations
- Chair general meetings to ensure no issues with presentations from officers and speaking companies
- Oversee the chapter officer corps and the internal workings of the chapter

Projects Officer

Jan. – Dec. 2022

- Organize volunteer opportunities that benefit University of Michigan and the Ann Arbor community
- Mentor a group of electees – orient and familiarize electees with honor society

Website Chair

Sept. 2021 – Sept. 2022

- Periodically update and maintain both the front- and back-end of our chapter's website

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IEEE Member

Dec. 2021 – Present

LEAD Scholar, *2020 Cohort*

Aug. 2020 – May 2024

Honors and Awards

Aspire Fellow

Oct. 2023

William J. Branstrom Freshman Prize

Mar. 2021