Rohin Tangirala

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EDUCATION

University of Washington – Seattle, WA — Sep 2023 – Present
Ph.D., Electrical and Computer Engineering

University of California, Berkeley – Berkeley, CA — Aug 2019 – May 2023
B.S., Electrical Engineering and Computer Sciences
Honors Breadth Area: Materials Physics

RESEARCH EXPERIENCE

Quantum Devices Group – UC Berkeley (PI: Alp Sipahigil) — Aug 2021 – May 2023
Undergraduate Student Researcher

- Research on designing phonon-protected superconducting qubits with improved lifetimes and coherence
- Designed custom parameters and geometric layout for flux-tunable transmon qubit through Hamiltonian modeling and 3D electromagnetic simulation
- Developed microwave measurement setup for device characterization and designed components for dilution refrigerator sample stage

Sandia National Laboratories – Albuquerque, NM — May – Aug 2022
Research and Development Intern

- Investigated hardware compilation and acceleration of custom neural network models on FPGA platforms
- Streamlined modeling of trained quantized neural network models in analog in-memory computing systems

AWARDS AND HONORS

Accelerating Quantum-Enabled Technologies (AQET) Fellowship — 2023
NSF Research Traineeship, *University of Washington*

Semiconductor Research Corporation Undergraduate Research Program Scholar — 2022
Sponsored by IBM, *University of California, Berkeley*

Finalist, Apple Outstanding Student Designer Competition — 2021
Sponsored by Apple, *University of California, Berkeley*
For original design of LCD display driver amplifier circuit for analog integrated circuits course

INDUSTRY EXPERIENCE

Cradlepoint – Boise, ID Jun – Aug 2021
Software Engineer Intern
Automated creation of an F2FS binary to facilitate remote deployment of 5G/LTE wireless adapter firmware

Cisco Systems – San Jose, CA May – Aug 2020
Software Engineer Intern
Created standardized development and testing pipeline for thermal fan control algorithms across multiple service provider router platforms

TEACHING EXPERIENCE

Devices and Circuits I (EE 331) – University of Washington Autumn 2023
Teaching Assistant
Led weekly lab section and guided students in completing electronic circuit simulation and measurement exercises, as well as final circuit design project

Going Down the EECS Stack – UC Berkeley Spring 2021 – Spring 2023
Guest Lecturer
Taught class session on electronic and photonic devices as part of student-run course surveying various subfields of electrical engineering and computer science

Designing Information Devices and Systems I (EECS 16A) – UC Berkeley Fall 2020
Lab Assistant
Assisted students in multiple lab sections for introductory EECS course covering circuit analysis and linear algebra, by providing technical and conceptual guidance

PREPRINTS AND PUBLICATIONS

M. Odeh, K. Godeneli, E. Li, **R. Tangirala**, H. Zhou, X. Zhang, Z. Zhang, A. Sipahigil. Non-Markovian dynamics of a superconducting qubit in a phononic bandgap. *arXiv:2312.01031 [quant-ph]*, 2023.