

# Mitchell Peterson

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## EDUCATION

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### Stanford University

Bachelor of Science in Electrical Engineering

Minors: Computer Science, Math, Physics, and Fine Art

Relevant Coursework: EE 108, EE 256, EE 214A, EE 101A/101B, EE 102A, EE 180, CS 106A/106B, CS 107E, CS 109, CS 205L

Three Years of Summer Research Experience for Undergrads (REU) - Electrical Engineering Department/Quantum Physics

Stanford, CA

Graduation Date – June, 2025

### Diablo Valley Community College

Associate Computer Science

Pleasant Hill, CA

May 2022

## ENGINEERING EXPERIENCE

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### Lab Assistant - Artificial Intelligence for Cancer Classification

Stanford University - Pathology Department

Stanford, CA

June - Current, 2024

- Developed a data collection and filtering system processing over 20,000 data points to optimize AI model performance.
- Designed and implemented robust file sorting and renaming programs, efficiently managing 5,000+ files weekly.
- Leveraged advanced scanning equipment to build and manage a database of 20,000+ tissue images.

### Intern - Beacon Tracking System

Stanford University - Electrical Engineering Department

Stanford, CA

June - August, 2023

- Developed an Android-based beacon tracking app utilized by 20+ patients for real-time monitoring and data collection.
- Integrated a remote data storage system to manage and securely store data for home-based dementia studies.

### Intern - Augmented Reality Chip Accelerator Design

Stanford University - Electrical Engineering Department

Stanford, CA

June - August, 2024

- Researched and optimized chip accelerator design to target a 50% improvement in energy efficiency for AR systems.
- Analyzed and optimized 3+ existing complex systems to enhance performance and efficiency.

### Intern - Quantum Photonic Device Development

Santa Barbara University of California - Quantum Foundry

Santa Barbara, CA

June - August, 2022

- Collaborated with a multidisciplinary team on quantum photonics research, setting up and calibrating laser systems, mirrors, and acoustic devices, ensuring precise alignment and functionality for experimental trials.
- Programmed automation for laser, mirror, and acoustic systems, enabling streamlined testing and data collection for quantum photonic device experiments, significantly reducing manual intervention and increasing efficiency.

## LEADERSHIP/COMMUNITY INVOLVEMENT

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### Transfer Student First-Generation/Low-Income Program Coordinator

Stanford University - Student Resources

Stanford, CA

June, 2023 - June, 2024

- Organized and led bi-weekly workshops for 10+ transfer students, offering resources on resume building, internship search, study abroad opportunities, and financial wellness.
- Fostered peer connections and improved student success throughout their time at Stanford by creating supportive networks and offering continuous guidance and resources.

### Transfer Student NSO Coordinator

Stanford University - New Student Orientation (NSO)

Stanford, CA

September, 2024

- Facilitated the onboarding of a 50+ transfer student cohort for 2024, organizing 3+ social events, guiding students to 10+ New Student Orientation (NSO) events.
- Provided key information, friendship, and support to ensure a smooth transition into the Stanford academic journey for new transfer students.

## SKILLS & INTERESTS

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- **Tools & Frameworks:** LTspice, Hspice, SPICE, MATLAB,, GitHub, jQuery, Bootstrap, HTML/CSS, I2C, SPI, MIPS, UART
- **Programming/Languages:** C, C++, Python, JavaScript, Kotlin, Assembly, Verilog, Circuit Python, X86 Assembler
- **Design/Composition:** Graphic Design, Website Design, Fine Arts, Realistic Portrait Drawing
- **Interests/Projects:** Medical Device Development, Sonar Sensor Motorized Car, Class-D Stereo Amplifier, PCB Design