

Connor Nieh

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EDUCATION

Duke University, Pratt School of Engineering, M.Eng. Medical Technology Design *Expected Dec. 2026*

- Coursework: Design Health, Advanced Design and Manufacturing, Signal Processing and Applied Mathematics

University of California, Riverside, B.S. Bioengineering *Sept. 2021- June 2025*

- Coursework: Biochemistry, Bioinstrumentation, Biomaterials, Biomechanics, Biophysics, Circulation Physiology, C++, Electrical Engineering, Optical Imaging, Statistics, Tissue Engineering, Quantitative Physiology
- Awards: Cum Laude, Dean's Honors List, Chancellor's Honors List, 3.76 GPA

DEVICE DEVELOPMENT PROJECTS

Duke Design Health Medical Device, Durham, NC *Aug. 2025 – Present*

Design in Healthcare Series, Duke University

- Developing medical device design skills through ethnographic research, client needs assessment, and interdisciplinary collaboration, culminating in a user-based prototype with clinical application

Microscope Integrated Instrumentation for OCT Project, Riverside, CA *Sept. 2024 – June 2025*

Optical Neural Imaging Lab, University of California, Riverside

- Prototyped and validated a device to integrate an optical coherence tomography (OCT) system into an upright microscope to enable simultaneous, multi-modality imaging of tissue structures as part of a senior design project
- Optimized OCT performance by collimating and aligning optical components in a custom 3-D printed housing unit, increasing imaging clarity and system reliability

PROFESSIONAL EXPERIENCE

Research Assistant, Durham, NC *Sept. 2025 – Present*

Biomedical Interferometry Optics and Spectroscopy Lab, Duke University

- Transforming a quantitative phase imaging system into a low-cost diagnostic tool, improving visualization of sickle cell disease morphology and enabling point-of-care clinical application in low access healthcare environments

Undergraduate Researcher, Riverside, CA *Oct. 2023 – June 2025*

Tissue Injury and Mortality Engineering Bioengineering Lab, University of California, Riverside

- Engaged in disseminative research by investigating stress tolerance of genetically engineered stem cell therapies and presenting findings on ASC toxic responses at the UCR Undergraduate Research Symposium
- Created an adaptable multi-cell proliferation model of cdc2 and cyclin interactions in MATLAB

Summer Biomedical Intern, Woodland Hills, CA *June 2024 – Sept. 2024*

Terasaki Institute for Biomedical Innovation

- Developed over 5 tissue processing, organoid culturing, cell harvesting, and drug dosing protocols for precision medicine experiments involving liver cancer, breast cancer, and glioblastoma patient samples
- Presented research on novel disease modeling and cell-based diagnostic applications of organoid technologies
- Led parallel projects in iPSC characterization, 3-D organoid culturing, and drug assay development, accelerating experiment throughput and supporting precision medicine studies in oncology

Medical Device Development Intern, Claremont, CA *June 2023 – July 2023*

Keck Graduate Institute, Claremont Colleges

- Co-designed and prototyped a medical device to enhance neuroplasticity in dementia patients, integrating CAD, electrical, and Python programming skills to deliver a functional, patient-focused product

Undergraduate Researcher, Riverside, CA *Mar. 2022 – June 2023*

Dr. Robert Jinkerson Chemical and Environmental Engineering Lab, University of California, Riverside

- Utilized aseptic, micropipette, and microscopy techniques daily to transition hundreds of wildtype Aiptasia to aposymbionts for genetic engineering experiments which aimed to reduce coral bleaching prevalence

ADDITIONAL SKILLS

Software: Arduino Programming, CB-Docking, COMSOL Multiphysics, C++, Fusion 360, Google Suite, Kivy, MATLAB, Microsoft Suite, On-Shape CAD, Python, SOLIDWORKS, 3-D Printing

Laboratory: Collimation, Confocal Microscopy, DNA/RNA Isolation, ELISA, Fluorescence Imaging, Gel Electrophoresis, Mammalian Cell Culture, OCT Imaging, Organoid Characterization, PCR, Primary Sample Processing, 3-D Cell Culture

EXTRACURRICULARS

International Society of Pharmaceutical Engineering *Mar. 2023 – June 2025*

Vice President, University of California, Riverside

- Coordinated member participation in professional workshops and networking events with industry leaders