

# KEVIN O'DONNELL

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## EDUCATION

### Columbia University

NYC, NY | Expected: Dec 2024

*Masters of Science in Biomedical Engineering. Concentration in Robotics and Control of Biological Systems.*

#### Relevant Coursework

- Robotic Studio, Mechatronics, Biomedical Innovation, Tissue Engineering, Digital Manufacturing, Control Theory.

### University of California, Los Angeles Extension

Expected: Dec 2024

*Certificate in Medical Device Engineering*

#### Relevant Coursework

- Med Dev Manufacturing, Biomaterials/Biocompatibility, Quality Systems, Regulatory Affairs, Six Sigma Green Belt.

### University of California, Los Angeles (UCLA)

Los Angeles, CA | Oct 2018 - Mar 2022

*Bachelor of Science in Honors Integrative Biology and Physiology*

**GPA: 3.5/4.0, Upper Div GPA 3.84/4.0**

- Awards: Departmental Honors, UCLA Alumni Scholarship National Finalist, UCLA Achievement Scholarship.

## EXPERIENCE

### Shape Memory Medical Inc.

San Jose, CA | Jun 2023 - Aug 2023

*Engineering Intern*

- R&D: Created 3D anatomical models from patient CT scans utilizing CAD. Pioneered 3D-printed resin models eliminating the need for animal testing, and expedited product testing for FDA approval. Established test-bed for pulsatile flow and pressure readings, and contributed to data collection and device validation in clinical approval cases.
- Manufacturing: Conducted circuit analysis and modifications to enhance the Crimping Stations' usability.
- Quality: Optimized laser welding parameters via Taguchi Analysis, results increased product tensile strength by 367%.

### Samuel Sia Laboratory - Microfluidics for Point-Of-Care Diagnostics

NYC, NY | Aug 2022 - Dec 2022

*Graduate Research*

- Executed PCR testing and overall design characterization to optimize microfluidic pump control for automated wastewater surveillance of SARS-CoV-2 to simplify sample processing and speed up data collection for early detection.

### United States Department of Veterans Affairs

Los Angeles, CA | Oct 2021 - Mar 2022

*Development & Civic Engagement Intern*

- Built an admin and clinical-oriented shadowing program at VA hospitals for underserved students, and personally connected with 40 schools. Organized the timeline, schedule, and overview of the program.

### Silk Road Medical Inc.

Minneapolis, MN | Jun 2021 - Sep 2021

*R&D Engineer Intern*

- Designed and constructed a microcontroller system to simulate carotid artery hemodynamics, enabling efficient pressure/flow testing of medical devices.
- Coordinated product design, fabrication, and testing of new training and procedure demonstration models.

### Colwell Laboratory of Circadian and Sleep Medicine

Los Angeles, CA | Jul 2019 - Jun 2022

*Undergraduate Research Assistant*

- Led a psychiatry-independent research experiment on sex-divergent and genotypic effects during neurodevelopment on Bloc-1 deficient Pallid mice. Responsible for all sides of the project, from behavioral experimentation to data analysis to scientific writing. Presented June 2022 at UCLA Physiological Science Poster Day.

## ACTIVITIES & LEADERSHIP

### Bruin Young Tech Professionals

Los Angeles, CA | Mar 2021 - Jun 2021

*HealthTech - Product and Research Development*

- Utilized the Google Design Thinking framework to create a Minimal Viable Product; a full-stack, API-based medication reminder texting service to be integrated into a hospital's Electronic Health Record. Leveraged doctor/professional interview to augment interface design and business plan presented to JPL, City of LA, etc.

### UCLA MakeLA

Los Angeles, CA | Jan 2021 - Jun 2021

*Student Mentor*

- Taught creativity in CAD and 3D printing, laser cutting, and computer programming to high school LAUSD students.

## SKILLS

Lab Skills: 3D printing, Laser cutting, Robotic design and fabrication, PCR, Pipetting. Thrive in ambiguous environments.

Tech Skills: CAD, Microcomputer/circuit control, Matlab, Python, C++, Microsoft Office