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: Designed CAD anatomical models from patient CT scans. Pioneered 3D-printed, test-bed abdominal aortic aneurysm models with pulsatile flow eliminating the need for animal testing, and expedited product testing for FDA approval. Facilitated device delivery and data collection in pre-clinical trials.
- 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. (Acquired by Boston Scientific)   **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 catheter medical devices. Helped to validate new TCAR training and procedure models.
- Conducted root cause analysis of the competitive landscape to identify new market opportunities.

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, Robotic design and fabrication, Laser cutting, PCR. Thrive in ambiguous environments.
Tech Skills: CAD, Microcomputer/circuit control, Design control, Python, Matlab, Data Analysis, Microsoft Office.