KEVIN O'DONNELL

Los Angeles, CA | www.kevinod.com | linkedin.com/in/kevinodonnell66/

EDUCATION

Columbia University **NYC, NY** | Sep 2022 - Dec 2024
Masters of Science in Biomedical Engineering. Concentration in Robotics and Control of Biological Systems. **GPA: 3.5/4.0**
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 abdominal aortic aneurysm CAD models from patient CT scans. Then, 3D-printed these test-bed models with a pulsatile flow system used in pre-clinical trials. Assisted in device delivery/data collection for IDE study.
- Manufacturing: Conducted electrical 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.

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.

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.

Projects (https://www.kevinod.com/Projects)

- Automated medical device root cause analysis/competitive landscape Python model (Selenium, Pandas, Matplotlib, etc).
- Autonomous bipedal walking/fire-shooting robot from sketches -> CAD -> 3D-Printing/Electrical/Mechanical/Python.
- Endotracheal Intubation model created in SOLIDWORKS with Design Controls and Functional Requirements.
- Composed commercialization plan (business and technological feasibility) for Columbia BiomedX retinal microneedle.

SKILLS

Lab Skills: 3D printing, Robotic design and fabrication, Laser cutting, PCR. Thrive in ambiguous environments.
Tech Skills: CAD (SOLIDWORKS), Mechatronics, Design control, Python, Matlab, Data Analysis, Microsoft Office.