

Kiran Shirish

New York, NY | [LinkedIn](#) | 650-660-4935 | kiran.shirish@gmail.com | kiranshirish.com

EXPERIENCE

Wandercraft

Paris, France | New York, NY

Field Service Specialist

Oct 2023 - Present

- Design and run a study of predictive maintenance of robotic exoskeletons, analyzing telemetry data across 3 units to detect early signatures of mechanical degradation
- Diagnose and repair novel failure modes on exoskeleton and humanoid prototypes, running root cause analysis across mechanical, electrical, and software layers
- Feed failure data back to R&D in Paris and inform design changes to improve reliability, such as adding cable compressors to avoid damaging PCBs during gait

Passerini Laboratory

Davis, CA

Undergraduate Researcher | PI: Dr. Anthony Passerini

Jun 2023 - Jun 2025

Lab Focus: Studies root causes of atherosclerosis using microfluidic chips that simulate blood vessels

- Led the redesign of microfluidic laminar flow chambers to be sterilizable and remove experimental error of leaking cell media in simulated blood vessel experiments
- Derived biocompatible design from cell culture standards and applied fluid dynamics to achieve specific Reynolds number and shear stress given flow rate constraints
- Iterated multiple designs using SolidWorks, SLA 3D printing, and CNC milling

EDUCATION

University of California, Davis

Davis, CA

Biomedical Engineering, B.S.

Sep 2021 - Jun 2025

- Honors: Regents Scholarship, University Honors Program, Most Creative Prototype at Make-A-Thon
- Relevant Coursework: Statics, Linear Algebra, Rapid Prototyping, Instrumentation, ML for BME
- Self Study: *Modern Robotics: Mechanics, Planning, and Control*, Lynch and Park

RELEVANT PROJECTS

Imitation Learning Policy for Robotic Pick and Place

New York, NY

Personal Project

Jul 2026 - Present

- Built Hugging Face SO-101 leader-follower robotic arm pair with LeRobot platform
- Recorded dataset of 50 pick-and-place samples with gripper and workspace cameras
- Train Action Chunking with Transformers (ACT) policy on Google Colab for autonomous pick and place of a ball into a bin, running inference on Intel i7 CPU

PneuMotion - Senior Design Capstone Project

Davis, CA

Co-lead Engineer

Sep 2024 - Jun 2025

- Created orthotic exoskeleton for patients with brachial plexus injury (arm paralysis) to regain daily function, allowing them to lock their arm along their natural ROM
- Utilized a slider-crank paired with a compressible gas strut as a locking mechanism
- Documented full design process with FMEA and verification/validation testing

Breast Cancer Classification Model – UC Davis

Davis, CA

Machine Learning for BME - Class Project

Mar 2025 - Jun 2025

- Built a convolutional neural network to classify breast tumors from ultrasound images
- Optimized F1 score by tuning model and applying data augmentation techniques

DNA Extraction Camera Mount - Exact Sciences

Redwood City, CA

Engineering Intern

Jul 2024 - Sep 2024

- Engineered custom camera mounts monitoring **1000+ cancer genomic assays** per day
- Fabricated and installed **12+** camera mounts that are still being used in the lab today

SKILLS

Python, MATLAB, Arduino, LabVIEW, Linux, Solidworks, Soldering, Design for Manufacturing