



EDUCATION

University of California, Berkeley — B.S. in Mechanical Engineering — May 2019

EXPERIENCE

Neuro42 — *Head of Engineering* | San Francisco, CA | 2021 – Present

- Led Mechanical and Systems level development of Gen 1 and Gen 2 MRI systems (first low field MRI with robotic surgical integration on the market) from design to FDA clearance to manufacturing, acquiring IP filings along the way.
- Directed a 10-engineer multidisciplinary team across mechanical, magnetostatic, electrical, radio frequency, robotic, systems, software, as well as external vendors to achieve investor lead milestones.

Petra — *Mechanical Design/Systems Engineer* | San Francisco, CA | 2018 – 2021

- Designed, simulated, and built the mechanical and thermal systems for the first three tunnel-boring prototypes achieving the company's first successful tunnel, acquiring IP filings along the way to preserve the patent method of tunnel boring.
- Worked with a 10-engineer multidisciplinary engineering team across mechanical, thermal, civil, robotic, electrical, systems, software, as well as external vendors to achieve investor lead milestones.

Berkeley High Speed Hyperloop — *Levitation System Lead Engineer* | Berkeley, CA | 2016 – 2018

- Designed, simulated, and tested magnetic levitation system including linear actuation and dynamic suspension, successfully performing levitation tests accurate to our simulations within 5% tolerance.
- Lead a 4-member multidisciplinary team consisting of mechanical, electromagnetic, systems, and physics.

Inertial Storage & Recovery Car — *Research/Design Engineer* | Berkeley, CA | 2016 – 2018

- Designed, machined, and assembled various subsystems for the car including electronics tray, drivetrain, dashboard, and body panels to keep the car in working condition, allowing research to always continue.

Lawrence Berkeley National Lab — *Research Assistant* | Berkeley, CA | 2017 – 2018

- Compiled dense datasets for India's power plants carbon footprint and power distribution specifications in deciding placement of future power plants and renewable energy, funded by India's government.

TECHNICAL SKILLS

CAD & Design: SolidWorks, Fusion 360, Inventor, AutoCAD, Onshape; advanced 3D parametric modeling, surfacing, assemblies, motion studies, and design automation (API scripting), and PDM setup/maintenance/workflows.

Analysis & Simulation: ANSYS, COMSOL Multiphysics, SolidWorks Simulation, Autodesk Nastran, MATLAB/Simulink; structural, thermal, modal, magnetic, CFD, topology and shape optimization, vibration, and fatigue.

Manufacturing & Prototyping: Manual/CNC machining, CAM, 3D printing, casting, sheet metal, laser/waterjet, welding, soldering, composite layup, surface finishing, GD&T, tolerance analysis, fixture/jig design, and DFM/DFA.

Electronics & Mechatronics: Microcontroller and embedded systems (Arduino, STM32, Raspberry Pi), motor control (stepper, servo, brushless), sensors and data acquisition, power management, signal conditioning, and wiring harness.

Programming and Automation: Python, MATLAB, C/C++, JavaScript, VBA, LabVIEW, Simulink, ROS; automation scripts, data analysis, numerical modeling, and hardware/software interfacing for experimental rigs and control systems.

Systems Engineering & Tools: Instrumentation (oscilloscopes, thermocouples, strain gauges, Hall sensors), documentation (Confluence, JIRA), collaborative environments (3DEXPERIENCE, Onshape, Fusion Team), and PLM.

Cross-Disciplinary Strengths: Rapid prototyping, system architecture, and data-driven iteration. Experience balancing conflicting constraints (thermal, magnetic, structural, cost) in high stakes R&D environments.