RANDY LINK | Berkeley, CA | 816-560-8798 | randy@randylink.me

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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.
- Set the technical benchmark for the team by tackling the most complex challenges personally and mentoring others through execution of supporting tasks.

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.

FIRST Robotics — *Team Founder/Design Engineer* | Kansas City, MO | 2013 – 2014

- Founded FIRST Robotics program for my district.
- Designed, assembled, and tested robot projectile system for competition robot.

Fire Sprinkler Solutions — *AutoCAD Design Engineer* | Remote Work | 2013 – 2018

- Created 2-D CAD models of fire sprinkler systems based on surveyed building layouts.

TECHNICAL SKILLS

CAD & Design
SolidWorks, Fusion 360, Inventor, AutoCAD, Onshape — advanced 3D parametric modeling, surfacing, assemblies, motion studies, and design automation (API scripting). Experienced with PDM setup/maintenance, drawing control, revision workflows, and design for manufacturability, cost, and simulation.

Analysis & Simulation
ANSYS, COMSOL Multiphysics, Solidworks Simulation, Autodesk Nastran, MATLAB/Simulink — structural, thermal, modal, magnetic, and fluid (CFD) analysis; topology and shape optimization; vibration, fatigue, and nonlinear contact modeling; materials selection and validation.

Manufacturing & Prototyping
Manual and CNC machining, 3-axis and 5-axis tool pathing, additive manufacturing (FDM, SLA, SLS, MJF), injection molding, casting, sheet metal, laser/waterjet cutting, welding, soldering, composite layup, and surface finishing.
Proficient in GD&T, tolerance stack-ups, fixture/jig design, assembly planning, lean manufacturing principles, and DFM/DFA.

Electronics & Mechatronics
Microcontroller and embedded systems (Arduino, STM32, Raspberry Pi), motor control (stepper, servo, brushless), sensors and data acquisition, power management, and signal conditioning.
Experience in system integration, wiring harness design, and troubleshooting electromechanical systems.

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
Machine shop and electronics lab proficiency, instrumentation (oscilloscopes, DMMs, thermocouplles, strain gauges, Hall sensors), version control (Git), and documentation (Confluence, Notion, JIRA).
Proficient with cloud-based and collaborative design environments (3DEXPERIENCE, Onshape, Fusion Team) and PLM integration.

Cross-Disciplinary Strengths
Design-through-manufacture ownership, rapid prototyping, system architecture, and data-driven iteration.
Experienced balancing conflicting constraints (thermal, magnetic, structural, cost) in high stakes R&D environments.