

EXPERIENCE

APPLE *Product Design Engineer* Cupertino, CA Jan 2017–Nov 2021

- Designed mechanical parts for iPhones XS, 12 and 14, balancing reliability, manufacturing, ID, electrical, RF, thermal, ingress protection, and functional requirements.
- Released nearly 100 PCB designs over three iPhone programs, gaining deep experience with rigid and flexible PCB design, manufacturing, assembly and failure analysis.
- Led electromechanical system architecture studies for new phone designs, including two major internal redesigns.
- Mentored new engineers as Dock Flex and Lower Antenna lead, and drove a unified design across the iPhone 12 programs.
- Owned system thermal design, working closely with thermal sim team on mitigations to hit thermal targets on redesigned iPhone.
- Conducted on-site failure analysis at overseas vendors, fixing issues quickly to keep prototype builds moving.
- Led cross-functional initiative to improve flex PCB cosmetic requirements without increasing cost.
- Presented regularly to management, pulling clear stories out of wide sets of engineering data.

SAVANT *Product Design Engineer* SF, CA Sep 2015–Nov 2016

- Responsible for mechanical architecture, part design, and production support for new Savant products.
- Prototyped product concepts, from paper and tape mockups to 3D printed parts and functioning electromechanical demos.
- Built and managed 3D printing and test labs.

LEEO *Mechanical Engineer* Palo Alto, CA Jan 2014–Aug 2016

- Drove design and production of mechanical parts and packaging for the Nightlight product through mass production as initial mechanical engineer at small startup company.
- Worked closely with industrial design and overseas contract manufacturers to meet high cosmetic, functional, and regulatory requirements on injection molded, die cast, and stamped parts.
- Wrote Leeo quality control documentation and ensured product quality throughout production.

HASBRO *Tech Acquisition Co-op* Pawtucket, RI Jan 2012–Jun 2012

- Researched new technologies for toys, created prototypes, and presented to senior management and brand teams.

EDUCATION AND COURSEWORK

Rensselaer Polytechnic Institute

B.S. in Mechanical Engineering and Design, Innovation, and Society (Product Design) Troy, NY 2009–2013

Inventor's Studio, How to Change the World *Undergraduate Researcher/Lead Teaching Assistant*

- Researched creativity, innovation and entrepreneurship, and developed lessons and activities that aim to help students develop their creativity, find unrecognized problems, and design novel solutions.
- Coordinated with TAs and the professor to develop course materials, mentor students, and plan classes.

SKILLS

CAD

NX, Creo, Solidworks, Onshape, Fusion 360

Prototyping Processes

3D Printing (FDM, SLA, SLS, Projet), Thermoforming, Laser Cutting, Cast Urethanes

Manufacturing Processes

Flex and rigid PCB mfg and assembly, injection molding, die casting, sheet metal, liquid and die cut adhesives, painting, plating

Electronics Prototyping

Arduino and Raspberry Pi

Testing

Reliability testing (drop, temp/humidity, HALT, Instron, water ingress)
Thermal Testing (thermocouples, IR)
Video Quality
Color Evaluation

Failure Analysis

Microscopy, SEM, LIT electrical, FEA

Graphics, Web Design, Office

Photoshop, Illustrator, Office, Keynote

PLAY

Skiing

alpine, touring, blades, mono

Cooking

food nerd, love learning about food science and new cuisines

Cycling

mountain, road, gravel

Climbing

gym, bouldering, scrambling, alpine