



## **YoungYoo Kim**

Design Engineer | Mechanical Engineer

### **Bachelor of Science in Mechanical Engineering**

Drexel University | Philadelphia, PA | 6.2019

### **Design Engineer Co-op**

Harbor Designs and Manufacturing | Baltimore, MD | 9.2016 – 3.2017

Design and develop products for consumer electronics, transportation, defense industries and biomedical products using Solidworks. Create prototypes, conduct various design analysis (DFMEA, ECO, FEA) and testing of multiple projects at a small/fast-paced product design company to help realize ideas to products

- Mechanical design engineer for ISO 9001/13485 certified design & engineering company
- Designed & built a prototype enclosure that houses optics, PCB, and a battery
- Designed weather & tamper resistant enclosure for a detection device to be installed in warehouse facilities of the largest online retailer in the US
- Designed onboard information system mounting solutions for Caltrans Surfliner fleet
- Communicated with clients in regular meetings for project kickoff, design review, and delivery
- Collaborated with overseas manufacturing companies for prototyping and small to medium scale production

### **Automotive Engineer Co-op**

Southco, Inc | Concordville, PA | 9.2014 – 3.2015

Create and revise product designs, drawings – using NX. Support mechanical engineers and project managers in various engineering tasks at the global headquarter of industry leading access hardware engineering company

- Assisted in developing prototype of a patented electromechanical marine latch mechanism
- Designed assembly fixtures to improve manufacturing speed and lower physical strain of assemblers
- Presented a conceptual design to one of the US's Big Three companies under NDA
- Collaborated with electrical engineering, NPD, testing, and tooling departments within the company
- Communicated with Southco's international manufacturing facilities in China and Mexico regularly

### **Projects**

- Drexel Senior Design – Micro air vehicle (< 500g) w/ pick and place capability assisted by an electromagnet. 3D printed chassis design/prototype using Solidworks. Chose various COTS items to meet specifications and competition criteria. Built a functional prototype as a team
- 4R Robotic Arm – 4R dual linkage robotic arm powered by Arduino utilizing inverse kinematics
- Seamless Laptop – Low power laptop enclosure design/prototype. DaaS/IoT prototyping platform
- Furniture Design – Stool, shelf, table, and lighting designs using Solidworks
- Ornithopter – Insect flight stabilization function demo mechanism design/build using Solidworks
- System Builder – Over 50 custom office, medical, CAD, and personal computer builds
- Web Design – Portfolio website and Vision Care USA (visioncareusa.org) website design

### **Technical Skills**

- Design Tools: SOLIDWORKS, NX(UG), Creo, LabVIEW, MATLAB, Autodesk AutoCAD/Inventor/Moldflow
- Design Capability: DFM, DFX, FEA, CAD/CAM, Plastic injection molding, 3D Printing, Laser cutting, Sheet metal, CNC Machining/Lathe
- Operating Systems: Windows 7, Windows 10, macOS, iOS, Android
- Utilities: Microsoft Office Suite, G Suite, Adobe Creative Suite (Ps, Lr, Ai, Id), CURA
- Web Design: HTML, CSS, JavaScript, Brackets, GitKraken, Github, Google Analytics

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