

Young Yoo Kim

design engineer - end to end product development

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United States Permanent Resident / South Korean Citizen

education ///

Drexel University
B.S. Mechanical Engineering

Philadelphia, PA

2019

experience ///

Harbor Designs & Manufacturing
Design Engineer

Baltimore, MD

Sep. 2016 – Mar. 2017

- Industrial designer and mechanical design engineer for ISO 9001 and 13485 certified company that designs and manufactures consumer, industrial, and biomedical products
- Used Solidworks to design parts for rapid prototyping and mass production
- Designed camera enclosure prototype for the defense industry
- Designed weather & tamper-resistant enclosure for an intrusion detection device to be installed in warehouse facilities of the largest internet retailer in the US
- Designed onboard information system mounting solutions for Caltrans Surfliner trains
- Communicated with clients in regular meetings for project kickoff, design review, and delivery
- Communicated with overseas manufacturing companies for prototyping and mass production

Southco, Inc
Automotive Design Engineer

Concordville, PA

Sep. 2014 – Mar. 2015

- Automotive mechanical engineer at the global headquarter of industry leading access hardware engineering firm
- Used NX to design parts for FDM, machining, and injection molding
- Researched and developed prototypes of a patented electromechanical marine latch
- Designed assembly fixtures to improve manufacturing speed and lower physical strain of assemblers
- Presented conceptual design to one of the US's "Big Three" companies under NDA to compete with a rival firm
- Collaborated with electrical engineering, NPD, testing, and tooling departments within the company
- Communicated with international Southco manufacturing facilities in China and Mexico

projects ///

Drexel Univ. Senior Design	Seamless Laptop	Independent Projects	Web Design
<ul style="list-style-type: none">Micro Air Vehicle w/ pick up and place capabilityHead of design and prototypingInnovative modular chassisProject in-progress	<ul style="list-style-type: none">Low power laptop enclosure prototype (wood, aluminum, and acrylic versions)For class of 2018 Drexel students' senior designModularity and cost focused IoT prototyping platform	<ul style="list-style-type: none">Portable ophthalmic surgical microscope stand conceptRemote computer access point enclosure conceptsFurniture DesignSystem Builder – Medical, CAD, Personal Computers	<ul style="list-style-type: none">Portfolio Website youngyookim.comVision Care USA (NPO) visioncareusa.orgGoogle Domains, Google Analytics, AWS LightSail, cPanel, Git
Halteres Function Demo	4R Robotic Arm	Lab Experiences	Medical Volunteer
<ul style="list-style-type: none">Two winged omithopter with haltere function demoSingle motor, gear train, and linkages for synchronized flapping wings and halteres	<ul style="list-style-type: none">Arduino powered robotic arm with 3R dual linkage arm and 1R gripper for pick and place challengeJoint by joint control with potentiometers	<ul style="list-style-type: none">Manometer (fluid/wind tunnel)Vortex tube, steam turbineLabVIEW VI – closed-loop/open-loop controlsInverted pendulumMicrofabrication – Si, SiO₂	<ul style="list-style-type: none">7 years of volunteering with an international blindness prevention relief organization, Vision CareNurse Assistant & Sterilization Manager

technical skills ///

CAD	Design Using – Solidworks, NX, PTC Creo, Autodesk AutoCAD/Fusion360/Inventor/Moldflow, Onshape, SketchUp Design For – Plastic injection molding, Laser cutting, Sheet metal, CNC Machining/Lathe, 3D Printing
Essentials	Operating Systems – Windows 7, Windows 10, macOS, iOS, Android Utilities – MATLAB, Microsoft Office Suite, Adobe Creative Suite (Ps, Lr, Ai, Id), CURA Web Design – HTML, CSS, JavaScript, Brackets, GitKraken, Github, Google Analytics