

Design

Coached introductory and advanced design courses in the Product Realization Lab as a teaching assistant. Instructed student in both how to execute their projects and how to approach ideas from a design standpoint, with an eye for feasibility, value and aesthetic.

Helped instruct students in advanced concepts of 3D printing, including algorithmic design, topological optimization, and other methods of leveraging the special capabilities of 3D printing in end use products.

Taught the use of Product Realization Lab tools for both end use work and rapid prototyping to over 500 students, and developed mastery of the tools through both teaching and practice.

Mechatronics

Designed and implemented mechanical and electrical systems, with a focus on motor design and implementations. Complete a depth sequence in Smart Product Design at Stanford University as the focus of my masters program.

Implemented motor control systems at both a hardware and software level to control numerous systems, including a custom built inverted pendulum built as a device for teaching controls.

Developed, designed, tested, and produced multiple embedded projects, including prototyping, layout, assembly, and short run PCBA production.

Work Experience

Stanford, Product Realization Lab Teaching Assistant, 2015-2017:

Taught as a machining lab specialist and assisted teaching Design for Additive Manufacturing.

Boosted Boards, Mechanical Engineering Intern, 2015:

Conducted user testing of a new electric skateboard controller and designed for the housings and mechanisms to be molded.

Kiwi.ki GMBH, Mechanical Engineering and Product Design Intern, 2014:

Owned and developed the ID, user testing and DFM for a consumer keyless entry solution.

CAD Software

Solidworks, Fusion 360, Grasshopper for algorithmic design, Rhino, Autocad HSMWorks and manual GCode for CNC toolpathing
Altium, KICAD, EAGLECAD for ECAD

Programming

C++, C#, C, Java, Python, Matlab, and Assembly for firmware development, scripting, and data analysis

Education

Stanford University, Mechanical Engineering, BS 2015, MS 2017