

JULIAN MICKELSON

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ABOUT ME

I harness engineering and design to create thoughtful products that combine form, function, and sustainability. I leverage an interdisciplinary background in mechanical engineering, product design, and design strategy with industry experience in consumer electronics and product development consulting.

EXPERIENCE

frog Design

Mechanical Engineer
Contractor
Jul 2020 - Dec 2020

Mechanical and embedded design of prototypes for client developing suite of commercial restroom products and appliances

- Developed functional, proof-of-concept prototypes for two product ideas
- Constructed modular, full-scale models for user testing and evaluation
- Designed hardware/firmware for UI mockup to control full-scale models
- Created and presented decks for C-suite client meetings

HTC Vive Creative Labs

Mechanical Engineer
Oct 2018 - Jun 2020

Mechanical design of products and advanced concepts in the virtual reality space, interfacing between global design and engineering teams

- Facilitated product development workflow, integrating the design intent from HTC's U.S. industrial design team with the technical requirements of HTC's Taiwan engineering teams
- Modeled class-A, C2 cosmetic surfaces for multiple products, including Cosmos XR module
- Designed appearance models, ergonomic mockups, and mechanism prototypes to evaluate future product concepts
- Led advanced tech and material research programs, including sustainable resins, novel ventilation strategies, and smart textiles

LUNAR / McKinsey & Co

Mechanical Engineer Intern
Jun 2017 - Aug 2017

Mechanical design and IoT embedded systems prototyping for diverse clients developing consumer products

- Led development of an internal tool that helped non-technical designers to rapidly test digital UI concepts on clients' hardware products, ranging from kitchen appliances to power tools
- Designed IoT enabled weight sensor and accompanying app for the office coffee machine to showcase UI tool capabilities

Tomorrow Lab

Mechanical Engineer Intern
Jun 2016 - Aug 2016

Mechanical design and fabrication of functional prototypes for startups in NYC area

- Designed a children's STEM education RC car that won honorable mention in Fast Company's 2017 "Innovation By Design" Awards
- Created and presented concept decks for client meetings

EDUCATION

University of Pennsylvania
MSE : IPD (May 2018)

Master of Science in Engineering in
Integrated Product Design (IPD)

University of Pennsylvania
BSE : MEAM (May 2017)

Bachelor of Science in Engineering in
Mechanical Engineering and Applied Mechanics (MEAM) *cum laude*
Minors - Engineering Entrepreneurship and Mathematics

SKILLS

Mechanical Design

Creo, SolidWorks, Class-A Surfacing, Rapid Prototyping, Machining, DFM/DFA

Electrical Design

Mechatronic Systems, IoT Embedded Systems, C/C++

Computer

Adobe Creative Cloud, Microsoft Office Suite