

LAURA NGAN

✉ itslaurangan@gmail.com

📄 <http://www.laurangan.com>

Leveraging dual expertise in engineering and human-centered design, I synthesize amorphous user needs with technical constraints in order to devise, prioritize, and execute on compelling products.

Stanford University

B.S. Product Design Engineering, 2017 M.S. Mechanical Engineering, 2018 Minor Symbolic Systems

Liminal Sciences (now Hyperfine), Product/Design Lead Feb '20-Dec '22 (~3 yr) \\ New York, NY

Medical device startup building an accessible, noninvasive brain vital sign monitor for use in hospital environments

- ▶ Identified 12 product opportunities for breakthrough technology and developed five-year company roadmap
 - Designed qualitative user research workflow and managed 2 researchers through 90+ clinician interviews
 - Defined clinical needs and use cases across 3 market segments along the care continuum
 - Determined initial MVP based on barriers to entry, technological complexity, user resonance, and market size
- ▶ Created PRD for MVP device, synthesizing competitive analysis, user research, and engineering constraints
 - Distilled 250+ requirements into 5 key differentiators to align cross-functional partners on product vision
 - Validated product-market fit using quantitative surveys incorporating pricing strategy and willingness to pay
- ▶ Led mission-critical development of sensor mounting subsystem from ideation to prototype to product
 - Devised matrix of five orthogonal product characteristics, constructed 20+ prototypes, and identified the best design through three rounds of usability testing
 - Managed 2 engineers (1 mechanical, 1 systems) through design review, implementation, and validation
- ▶ Served as champion of the user as part of three-person leadership team during Series B investor pitches
- ▶ Managed partnerships with 5 external firms across engineering, design, and human factors research
- ▶ Led mechanical engineering of PoC ultrasound sensor and EEG device used in two clinical studies at UPenn

Peloton, Product Design and Drafting Engineer

Apr '19 - Feb '20 (~1 yr) \\ New York, NY

Connected fitness company with a product portfolio that includes stationary bikes, treadmills, rower, and strength trainer

- ▶ Conducted internal user tests for rower, assessing concept viability, interaction dynamics, and ergonomics
 - Built modular, to-scale prototypes, working with 1 industrial designer and 1 mechanical engineer
- ▶ Assisted with concepting for strength device using competitive analysis and observational user research
- ▶ Redesigned Dumbbells to facilitate international market entry and reduce manufacturing inefficiencies

Smart Design, Design Engineering Intern

Jan - Apr '19 (~3 mo) \\ New York, NY

Award-winning strategic design and innovation consulting firm specializing in interdisciplinary, human-centered design

- ▶ Designed production CAD for OXO Prep-and-Go vacuum-sealed containers, released in 2021
 - Incorporated feedback from user testing and client communications into ergonomic latch and seal design

Osmo, Product Design Engineering Intern

Jul - Dec '18 (~6 mo) \\ Palo Alto, CA

Educational tech startup designing a children's learning game system that uses physical pieces read by machine vision

- ▶ Collaborated on zero-to-one development of Little Genius, an award-winning product line released in 2019
 - Iterated on 3 game concepts by playtesting and providing insights to external software partner
 - Helped strategize games to include at launch based on cost of goods and risk of cannibalization
- ▶ Led Creative Board redesign to reduce cost and add stabilization feature for new market segment
 - Ideated, prototyped, and playtested concepts for paper retention feature that improves game experience
 - Developed mechanical design for final concept, working with manufacturer in China for mass production