

Scott Macdonald

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Product design engineer

Experience in new product development and introduction, user experience driven design methodology, and cross functional project management

Experience

Product Engineer

iBeat, March 2018- Present

- Coordinate product requirements with internal marketing, logistics, and business ops
- Define, prototype and validate product features and engineering specifications
- Analyze field failures, identify root causes, and create design and engineering solutions
- Establish and communicate manufacturing and assembly specifications to vendors in Asia

Project Manager and Engineer

Sextant Industries, June 2011- Present

- Serve as an internally operating product development consultant
- Successfully scope and deliver 9 projects for medical, consumer and industrial clients
- Focus in translating qualitative UX and ID design intent to quantitative engineering analysis
- Manage vendors and contractors to deliver functional physical and digital prototypes

Product Development Lead

Subpac, Oct 2016- Nov 2017

- Drove product design and development for VC backed start-up in wearable audio devices
- Prototype, test, and validate product requirements and engineering specifications
- Established UX research efforts to prioritize user centered methodologies in decision making
- Engaged with tier 1 manufacturers and vendors to complete NPI process under budget

Product Design Engineer

Pax Labs, September 2014- April 2015

- Defined product requirements and prototyped features for next generation vaporizers
- Worked with marketing, ID, and R&D input to prioritize and prototype and test features
- Translated use case driven product requirements to quantifiable engineering specifications
- Successfully down selected candidate designs to a viable working product for beta testing

Education

Stanford University

MS Engineering, Product Design, class of 2015

Multi-disciplinary, project based education in product development strategies and UX centric methodology. Stanford Ignite Executive MBA Graduate

Courses focusing on human factors, product strategy, and design thinking supplemented by technical studies in visual design, connected systems, and HCI

5 teaching positions in courses ranging from mechatronics, start-up strategy, and the history & philosophy of design.

Led numerous human centered design workshops at the Hasslo Plattner d.school for executives and students, for the Government of Hawaii, as well as internationally in Korea

University of Colorado

B.S. in Mechanical Engineering class of 2010

Emphasis in new product development, participant in Lockheed Martin Engineering Entrepreneurship Program

Bootstrapped senior capstone project in autonomous GPS tracking cameras for extreme sports athletes

Skills and Abilities

Digital

UX wireframing, Adobe CS, Keynote, Sketch, Balsamiq, Invision, Marvel, A/B testing, 3D Parametric Surfacing and Master Modeling, Asynchronous techniques, Basic Embedded C, Linux, Python, Arduino

Physical

Rapid Prototyping & analysis of handheld and wearable electronics, Mechatronic integration of general I/O and actuators, Lightpipe Design, Sensor Integration, DFM/ DFA & SOP creation, IQC/OQC protocols

Language

Proficient Spanish, Basic Chinese