

SUMMARY

With early experience at Hewlett Packard, IDEO, and Moto Development practicing mechanical engineering, industrial design, product design and project management, I launched my own consultancies and entrepreneurial pursuits. I'm a driven product designer building 30 years of design & release experience in industries, including consumer electronics, mobile, computing, accessories, toys, fitness, and cut & sew. I own my work, whether a team member/builder/leader or individual contributor bringing non-obvious, sophisticated, high-margin products to life. I'm effective throughout the development cycle from concept ideation, iteration, ID, detailed mechanical design, IP generation to technical optimization of parts, assemblies and tooling for high yield, low cost production. I have cross platform CAD skills, design, ME and manufacturing process knowledge, with on and offshore prototype and manufacturing networks. I can source, qualify, motivate and manage contract manufacturers and engineering teams. I excel in physical interface and feature set challenges. Inventor and co-owner of multiple issued utility and design patents. I've worked and lived in China and I'm comfortable navigating Asian business, vendor and manufacturing cultures.

CORE QUALIFICATIONS

World-Class Product Design Engineer	Development Process Generation and Optimization
Concept Brainstorming Leadership and Ideation	Production Launch, De-bug and Maintenance
Feature Sets, Product Specs and Product Line Road Mapping	Development Team Building and Mentoring
Hand Sketching and Computer Rendered Presentation	ME and ID expert for High Volume Low Cost Parts
3D-CAD Solids Modeling and Advanced Surfacing	Injection Molded Parts Design and De-bug
CM Sourcing, Compliance, Liaison and Management	Sheet Metal Part Design and De-bug
ID and ME Team Management	Compression, Liquid Injection and Injection Molded Silicone and Elastomer part Design and De-bug
Contractor Negotiations and Oversight	Proof of Concept, Engineering Check Model and Rapid Prototyping
Budget Estimates and Oversight Product/Program/Project Management	

PROFESSIONAL EXPERIENCE**Touchfire, Inc.** - Seattle, WA

Dec. 2010 to Present

CoFounder and Director of Product Development

Touchfire manufactures silicone rubber screen top keyboard overlays and low profile articulated cases for iPads. Our keyboards enable comfortable accurate touch typing. Our cases are highly adjustable, with features that enhance sound fidelity and the general user experience. Touchfire products are discreetly compatible with a tablet's DNA extending its usage modes without adding electronics or bulk. At the time of funding, Touchfire was the highest funded iPad accessory in Kickstarter history. My co-founder and I have been responsible for every aspect, including successfully creating strong IP with two 25 claim utility patents, the first issuing a year and a month after application, and multiple utility and design patents issued and pending. We've built a company with approximately \$2 million revenue after C.O.G.s in 2014 with only 3 employees (including ourselves). Please see Touchfire.com for more.

BTOP Product Development - Seattle, WA

Feb. 2009 to Dec. 2010

Founder and Owner

BTOP practiced quick-turn product development consulting - supporting all ID, ME, design verification, IP, on/offshore sourcing and CM management tasks from concept through dialed in production and fulfillment.

Made Products, Inc. - Seattle, WA

Sep. 2007 to Feb. 2009

Director of Innovation

Leader of product development, innovation and IP generation. Created and maintained Made's product line roadmaps, and backed launch decisions with ROI, COGS and BOM documents and analysis. 2 years from inception Made had 16 U.S. and international patents pending, 4 provisional patent applications filed and 3 brands with full trademark protection. Made Products, Camera Armor and Always-On brands are distributed and sold world-wide in over 70 countries. Created and optimized the development process, managing several internal and contract product development teams who brought new products to market every couple months. Technical lead on products designed, prototyped and manufactured using the latest in offshore medium and high volume injection molded, die cast and elastomeric processes including: Liquid Injection Molding, Injection Compression Molding, Insert Molding and Silicone Rubber Casting. Made Products, Inc. was acquired by Daymen Lowepro, International in July 2008, securing major shareholders approximately 22 times their original investment.

Speck Design, LTD. - Shanghai, PRC

Jan. 2005 to Sep. 2007

Co-Founder, Partner and General Manager

Established in August 2005 as a WFOE, "Speck China" offers world class design, innovation, engineering, sourcing and manufacturing consulting services to international and Chinese domestic clientele. I directed office site selection, design, build out, financial negotiations, recruiting, hiring, training, marketing and staff management. I led a mostly Chinese National staff that, by 2006 numbered fifteen with another two QC production shipment inspectors stationed in Shenzhen. Accountable for creating and maintaining business plans & strategy, public relations, customer satisfaction, design & engineering process and output. My staff conceived and produced all the initial product and packaging design and engineering that launched Made Products, a digital camera accessory company based in Seattle.

BlackTop, LLC - San Francisco, CA

May 1996 to Jan. 2005

Founder and Owner

A full cycle product development company, BlackTop helped customers take product ideas from concept through detailed design & engineering and into production. Our clients were startups and fortune 500 including Oral-B, Healthetech, IXI - producers of the OGO line of cellular e-mail and text messaging devices, Formac, Olive products and many divisions of Hewlett-Packard. BlackTop took full in-house responsibility for: Mechanical Engineering, Electrical Engineering, Industrial Design, Graphic Design, Human Factors Optimization and routinely oversaw, prototyping, tool build and production De-Bug. BlackTop used the latest in CAD and rapid prototyping tools to quickly bring inspirational products to market.

Moto Development Group, - San Francisco, CA

Aug. 1995 to May 1996

Senior Product Design Engineer

Led a design team of five, to develop the SGI Origin 2000 desk-side supercomputer. Responsible for Mechanical Architecture, BOM, project management. Oversaw parts design review & critique, system tolerance analysis and client liaison. Managed concept, technical production viability and presentation model development for the Zoobs® toy building set (Primordial, LLC). Regularly developed project proposals and early concept presentations for consumer product projects.

Creative Insights, Inc. - Cupertino, CA

Mar. 1994 to Aug. 1995

Mechanical and Industrial Design Head

Directed ID and ME development of all products, bringing a full key-size 49-note piano keyboard and three 'ScreenToyz' cartoon-like input devices from concept to market in less than 7 months. Personally designed and engineered the entire enclosure of the Piano Discovery system while directing the detailed ID and mechanical design of the 'ScreenToyz'. Managed 'ScreenToyz' products tool builds and manufacturing of 10,000 per month in China with yields above 99%. The Piano Discovery System is a screw-less snap and push together, (using interference bosses) tops-down US manufactured design. The Piano Discovery System remained viable and for sale for 13 years without modifications.

IDEO Product Development (formerly David Kelley Design) - Palo Alto, CA Sept. 1988 to Feb. 1994

Lead Product Design Engineer

Led design teams in eight product design programs including the Worlds Of Wonder Jaminator toy electric guitar, Sjöberg Industries Consumer electric can crushers, Compression Labs video conference and graphics stand, CapSnap tamper evident yogurt cup, Mitsui laptop computer, and Domestic Automation Company power meter readers. Supported the development of personal computers for Microsoft, Apple, Hewlett Packard, and Specialized cycling products. Responsible for training and customization for 3D CAD. Proposed, modeled, validated passive and active cooling solutions for electronics and computer enclosures using quick empirical thermal analysis techniques. Strong proponent of IDEO brainstorming and innovation practice.

Hewlett-Packard Company - Roseville, CA

June 1983 to Sept. 1988

Roseville Terminals Division

Product Design Engineer and Industrial Designer

Practiced ID and ME. Engineering: managed and carried out thermal, shock, vibration and environmental tests. Responsible for RFI, EMI and ESD testing; cross functional team liaison for FCC qualification. Oversaw CSA, TUV and UL qualification for computer terminal and Personal Computer products. Detailed part design, on-site manufacturing production line design, development and post production dial-in. Design: created early concept sketches, renderings, form, color & texture studies for monitors, terminals, telephones, touch-screens and PC's. Led a blue sky concept project demonstrating the potential of early gas-plasma flat screen display technology developing a works-like presentation model in 2 weeks. Carried out icon, label and other graphic design tasks as well as training staff in the use of 2D mechanical (ME10) and 3D solids modeling (ME30) CAD.

EDUCATION & LANGUAGE

BS General Engineering, Stanford University, March 1983 Major: Product Design - Core work in Mechanical Engineering, Human Factors, Physics, Art Design, and Photography with extensive background work in Mathematics, Biology, Chemistry, and Computer Programming.

Native English speaker; elementary to intermediate spoken proficiency in French and Mandarin; childhood immersion and exposure to spoken and written Hebrew.

HONORS & ACHIEVEMENTS

Lifetime California Scholarship Foundation Member

Lifetime Tau Beta Pi Engineering Society Member

Winner and 14 year record holder of the Race Across America (RAAM) Mixed Team Relay set in 1994 (road cycling)

Inventor Utility Patent #5,924,780 owned by Silicon Graphics, Inc. Sliding Door Assembly For A Computer Housing

Inventor Utility Patent #6,206,237 owned by PepsiCo, Inc. Bottle Dispenser

Inventor Design Patent # D549,197 owned by Cingular Wireless II, LLC Mobile Communications Device

Inventor Utility Patent #8302749 and United States 20090250362 owned by Daymen Lowepro, Inc., Protective Transport Bag

Inventor United States Patent Utility Patent #20090206077 owned by Daymen Lowepro, Inc., Protective Camera Enclosure

Inventor in Utility Patent #8,206,047, #8790025 and China #201280031247.9 owned by Touchfire, Inc. Keyboard Overlay For Optimal Touch Typing On A Proximity Based Touchscreen

Inventor Design Patents #D727,919 and D727,916 owned by Touchfire, Inc. , Protective Case Decorative Design

Other Patents Pending with US PTO and PCT

References available on request