



SKILLS

- Product Design** Professional experience, graduate curricula, and projects in needfinding, product definition, collaborative ideation, industrial design, user testing, and transition to manufacturing. Work with clients to define new and innovative products appropriately designed for target markets and users. Projects in human factors and electronic “smart product” design. Author of blog on use and usability in product design, UnpressableButtons.com. Several products currently shipping and concept prototypes showing at trade shows.
- Engineering** Professional experience in 3D CAD design, complex industrial design surfacing, master modeling, DFM/DFA, statistical tolerance analysis, cooling, EMI containment, plastic, sheetmetal, CNC, and rapid prototyping. Graduate engineering curricula and projects in mechatronics, vehicle dynamics, manufacturing, microcontrollers and circuits, and smart product design. Vehicle dynamics and systems research. Co-instructor for collegiate senior-level mechanical systems design course.
- Visual Design** Graphic designs used in production shirts, patches, flags, and promotional materials. Courses and projects in art, visual, media, and industrial design. Designer and owner of informational, personal, organization, and storefront websites.
- Software** Proficient in Pro/Engineer, SolidWorks, Photoshop, Microsoft Office, microcontroller programming. Experience with Illustrator, C, video editing.
- Leadership** Management of design and engineering teams and projects. Client and vendor management, including leading client-involved design exercises. Mayfield Fellows Program: 1 of 12 Stanford undergrads annually selected for high-tech entrepreneurship internship/coursework/mentorship program. Leadership of Stanford residential staffs.
- Presentation** Experienced competitive public speaker. Developed coursework and taught Stanford public speaking classes. Stanford Tour Guide, Stanford Mock Trial.

EDUCATION

- 2002-2004** Stanford University – M.S. Mechanical Engineering 6/04; GPA 3.76; Mechatronics and Smart Product Design depth sequence, autonomous robot competition winner; M.E. research; M.E. Course assistantships.
- 1998-2002** Stanford University – B.S. Product Design and Mechanical Engineering, 6/02; GPA 3.76; Product Design Group; Resident Assistant; Tour Guide; Stanford Band.
- 1994-1998** Kettering Fairmont HS – Kettering, OH; valedictorian, 6/98; Eagle Scout; National Merit Scholar; 10 Ohio state titles in science, public speaking, writing, and art.



EXPERIENCE

- 2007-Present** Frog Design: Senior Mechanical Engineer – Integral team member and lead engineer in creative product design process including ideation, needfinding, product definition, design exercises, feature set composition, engineering feasibility, technological architecture, 3D CAD creation, and transition to manufacturing. Work on consumer products in the areas of home convenience, entertainment, consumer medical, home computer, mobile, and food packaging. IDEA Bronze awards for two projects in 2009.
- 2005-2007** Acorn Product Development: Mechanical Engineer – Ideation, design, engineering, manufacturing oversight, and project and team management for product development consulting firm. Concept development to production-ready design of high-volume electronics-based consumer and telecom products for clients, for low cost, thermal, EMI, usability, and structural performance. Managed scaling global teams of up to 12 engineers and designers in San Francisco, Boston, and China.
- 2004-2005** Vestal Design Atelier: Product Designer – Consulting with clients to ideate, develop, design, and refine consumer products considering human factors, form, function, user testing, manufacturability, and market factors.
- Winter 2005** Stanford University: Lecturer – Co-instructor for senior-level mechanical systems design course. Taught material and developed assigned projects in geartrains, DC motors, linkages, and mechanism design and analysis.
- 2003- 2004** Stanford University: Course Assistant – Assisted mechanical design and vehicle dynamics classes, developing curricula with professors and teaching students in labs, class, and office hours.
- Summer 03-04** Stanford Summer Session: Associate Director of Residential Life – Led staff of 12 providing collegiate residential programming, community, and protection for undergrads, managed \$10k budget.
- Summer 2002** Palm Solutions Group: Product Development & Marketing Intern – Worked with teams to design, develop, refine, and analyze new products and services for leading PDA manufacturer.
- Summer 2001** Stanford Dynamic Design Lab: Undergraduate Researcher – Designed and implemented hardware, electronic, and software system of inertial and satellite navigation devices to determine automobile longitudinal tire slip and correlate to tire force for improved braking performance.
- Summer 2000** Stanford Web Designer: Contest winner to redesign university webspace for Vice Provost; Responsible for aesthetic and organizational redesign for increased intuitive usability by novice and continuous users; developed comprehensive proposal and fully functional site.