



Tyler Bushnell

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Education

STANFORD UNIVERSITY

M.S. IN MECHANICAL ENGINEERING

Focus in Design Methodology, Graduation in 2013

NEW MEXICO INSTITUTE OF MINING AND TECHNOLOGY

B.S. IN MECHANICAL ENGINEERING, MINOR: Philosophy

GPA: 3.64 Graduated May 2011

Student Exchanges

University of Massachusetts at Amherst (Fall '07-Spring '08)

Mälardalen University, Västerås, Sweden (Spring '10)

Extracurricular

NM X-PRIZE DESIGN COMP, GRAND PRIZE WINNER '11

For coastal disasters, a teammate and I designed a survival unit that efficiently used solar energy and other contextual heat sources to save lives

TAU BETA PI – Stanford Social Chair '11

To encourage this nearly dead club, I was put in charge of organizing and running social events to increase excitement and awareness for the organization

AMERICAN SOCIETY OF MECHANICAL ENGINEERS

President of the NMT Chapter (2009-2010) – Members were unenthusiastic about the club, so I took charge, sending 15 people to 2 national conferences and doing many more events, creating a new culture of the club

FREELANCE GRAPHIC DESIGN – Working with local and national clients, notably GE, to create 4 websites, over 50 fliers, 1 large-format poster, and winning 15 awards

EAGLE SCOUT (Awarded 2005) – Planned and managed the construction of 1 patio, 1 shrine, and 3 benches

HENAAC COLLEGE BOWL X, 2009 WINNER

Displayed teamwork, creativity, innovation, and leadership on this record-breaking team

HENAAC TECHNICAL POSTER 3RD PLACE, 2010

Presented personal research on creatively designed, hybrid airfoils for vertical axis wind turbines

Skills

- leadership, budgeting, and scheduling experience
- SolidWorks, AutoCAD, ANSYS; Adobe CS4 & video editing experience; MATLAB, Java, C, C++, PHP and HTML

Experience

GLOBAL DESIGN INNOVATION ME310 PROJECT

Project Engineering and Ethnography (Fall 2011-present)

- SAP wants to know what the future of paper is, so my team is tasked with figuring out why people use paper today, and how we can replace it in the future
- Using a design thinking process of careful interviews, prototypes, and iterations we are developing a framework to understand the needs of notebook users

WALT DISNEY WORLD

Project Engineering Intern (Summer 2011)

- To improve the park, I collaborated and organized stakeholders in 6 different divisions to document and enhance the usability and safety of 3 attractions
- On the new “Voyage of the Little Mermaid” ride, I managed track assembly quality control on-site, saving around 100 faulty installations
- For unique problems, I designed tools for employees to use, easing strain and preventing injury

SANDIA NATIONAL LABORATORIES

INTERN (SUMMER 2010 - SPRING 2011)

- In order to use FEA as a tool for wind turbine blades I modeled experimental blades in ANSYS, I then validated the models, enabling the group to efficiently garner further insights to the structural properties of 2 types of wind blade

AFFORDABLE HAPTIC FEEDBACK FOR PROSTHETICS

(Mechatronics Project Spring 2011)

- To build an inexpensive and simple feedback system that gives direction and speed feedback using a wheel, I designed and prototyped the form, and then programmed a PIC microcontroller to sense IR dx and dy input to control the 2 feedback motors

WIND POWER EXHIBIT DESIGN TEAM

(Design Project Spring 2011, Team Leader)

- My team was to build an exhibit that was interactive and educated on wind energy, and we built 2 different exhibits with uniquely programmed PIC microcontrollers that instructed on 2 variables with 6 possibilities for children around age 13
- Our project was chosen as the best Spring project, and was displayed at graduation