

Beau C. Landis

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Professional Summary

Mechanical Engineer with diverse background in component and system designs. Experienced with product design and SolidWorks, rapid prototyping, hands-on manufacturing, and troubleshooting. Passionate about design.

Experience

Upstart Power, LLC.

Mechanical Engineer

Southborough, MA
Sept 2017 – Aug 2018

- ♦ **Start up** company started by former Protonex Solid Oxide group members, responsibilities same as at Protonex.

Protonex Technology Corp.

Mechanical Engineer

Southborough, MA
Sept 2017 – Aug 2018

- ♦ **Designed** Solid Oxide Fuel Cell systems for both commercial and military applications
- ♦ **Performed** thermal and mechanical stress analyses to validate system performance and lifecycle
- ♦ **Set-up** testbench for initial system break-in, full system runs, and for thermal cycle testing of cell modules
- ♦ **Assembled** multiple iterations of prototype systems for rapid system development

Rogers Corporation - Innovation Center

Innovator: Ferrite Lab Co-Op

Burlington, MA
Jul 2016 – Dec 2016

- ♦ **Directed** the scale-up, from lab to production, of a new ferrous ceramic compound resulting in the first production scale batch
- ♦ **Conceptualized** testing equipment to accurately measure permittivity and permeability of magnetic materials with company scientists
- ♦ **Designed**, built, and modified lab scale equipment in order to produce production scale batches of material

Pratt & Whitney - United Technologies

Hot & Cold Section Design Engineering Co-Op

North Berwick, ME
Jul 2015 - Jan 2016

- ♦ **Conducted** manufacturability study, leveraging preexisting equipment, for a new product design resulting in a reduced lead time
- ♦ **Worked** with FAA to find best repair option for non-serviceable parts resulting in reduced scrap costs
- ♦ **Created** detailed tolerance stacks to support design and repairs for new / repaired parts allowing for future repair justification

Parker Hannifin: Precision Fluidics Division

Manufacturing Engineering Co-Op

Hollis, NH
Jul 2014 - Dec 2014

- ♦ **Designed** and conducted verification experiments for manufacturing equipment thus reducing number of scrapped parts
- ♦ **Designed** and assembled modifications for test / production equipment resulting in a workstation efficiency boost of 50%
- ♦ **Collected** and analyzed data to ascertain the effectiveness of a new part design with Minitab

Northeastern University Baja SAE

Team Member/ Suspension Co-lead

Boston, MA
Sep 2012 – Jun 2017

- ♦ **Designed** and built front and rear suspension system and geometry resulting in improved maneuverability and reduced stress
- ♦ **Created** computer models to measure bump / droop steer, Ackermann, scrub radius, and roll center resulting in more efficient designs
- ♦ **Performed** FEA/FEM simulations on car components for more optimized component designs

Technical Skills

- ♦ *Applications:* Minitab; Maple; MatLab/Simulink (proficient); Ansys; AutoCAD; NX (UG); SolidWorks (CSWP certification); Inventor; Onshape; Mastercam
- ♦ *Programming:* C++; Python; Arduino
- ♦ *Hands-On:* 3D Printing; CNC machining; Milling; Turning; Notching; Laser Cutter; Soldering; Tube Bender; TIG/MIG Welding; Woodworking; Hand Tools

Education

Northeastern University

Master of Science in Mechanical Engineering; Bachelor of Science in Mechanical Engineering (Graduate GPA: 3.6/4.0)

Boston, MA
May 2017

- ♦ *Honors:* Leadership Scholarship; The Ferretti Award, Magna Cum Laude
- ♦ *Activities:* American Society of Mechanical Engineers; Tau Beta Pi; Pi Tau Sigma

Personal Projects

- ♦ Self-taught blacksmithing and casting techniques by designing and building a homemade forge/foundry
- ♦ Hand fabricated English longbow from ash using synthetic sinew
- ♦ Design, produce, and sell custom silk-screened t-shirts