

Beau C. Landis

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Professional Summary

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

Experience

Upstart Power, LLC.

Mechanical Engineer

Southborough, MA

Sept 2017 – Present

- ♦ **Start-up** created as spinoff of Protonex by fuel cell group members; responsibilities and projects remained the same

Protonex Technology Corp.

Mechanical Engineer

Southborough, MA

Sept 2017 – Aug 2018

- ♦ **Created** solid oxide fuel cell systems for commercial and military applications ranging from 450-1000 watts
- ♦ **Conducted** thermal and mechanical stress analyses to validate performance at temperatures approaching 850C
- ♦ **Built** test benches for prototype testing, initial system break-in, full system runs, and life cycle testing of cells
- ♦ **Assembled** multiple iterations of prototype systems for rapid system development

Northeastern University Baja SAE

Team Member/ Suspension Co-lead

Boston, MA

Sep 2012 – Jun 2017

- ♦ **Placed** top ten out of 100 at both competitions entered in 2017
- ♦ **Designed** and built custom suspension systems increasing stiffness by 50% and reducing turn radius by 30%
- ♦ **Managed** computer models and BOM of car components allowing car to be built with full month of testing before first race
- ♦ **Performed** FEA simulations on car components reducing overall weight by 30lbs while maintaining fatigue life

Rogers Corporation - Innovation Center

Innovator: Ferrite Lab Co-Op

Burlington, MA

Jul 2016 – Dec 2016

- ♦ **Directed** the scale-up from lab to production, increasing batch yield by 500%
- ♦ **Conceptualized** and modeled testing equipment in CAD to accurately measure permittivity and permeability of magnetic materials
- ♦ **Designed**, built, and modified lab-scale equipment for more efficient production

Pratt & Whitney - United Technologies

Hot & Cold Section Design Engineering Co-Op

North Berwick, ME

Jul 2015 - Jan 2016

- ♦ **Conducted** manufacturability studies for a new product design resulting in a reduced lead time on repairable parts
- ♦ **Created** detailed tolerance stacks to support design and repairs departments

Parker Hannifin: Precision Fluidics Division

Manufacturing Engineering Co-Op

Hollis, NH

Jul 2014 - Dec 2014

- ♦ **Conducted** DOE for manufacturing equipment, reducing number of scrapped by 10%
- ♦ **Designed** and assembled modifications for production equipment resulting in a workstation efficiency boost of 50%

Technical Skills

- ♦ **Applications:** Minitab; Maple; MatLab/Simulink; Ansys; AutoCAD; NX (UG); SolidWorks (CSWP); 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

- ♦ Rebuilding engine/suspension on 1987 Jaguar XJS to turn into street registered track car
- ♦ 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 tee shirts