

## Professional Experience

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### Blue Origin – Kent, WA

*Propulsion Engineer II | April 2018 – Present*

*Propulsion Engineer I | September 2017 – April 2018*

- Supported the design and development of the family of liquid oxygen and liquid hydrogen rocket engines including the BE-3 tap-off cycle engine powering the New Shepard reusable rocket and the BE-3U expander cycle engine powering the future New Glenn rocket.
- Performed design, analysis, procurement, and non-conformance handling for GSE, development, and flight hardware including primary thrust structures, secondary bracket structures, weldments, small tubing, commodity manifolds, struts, fluid fittings, etc.
- Created a system analysis model for an integrated development test article to extract interface loads.
- Served as configuration manager for both BE-3 and BE-3U engine layouts.
- Kickstarted a hydrogen embrittlement testing campaign to support material development for BE-3U.

*Software Development Engineer | June 2021 – Present*

- Scripted a post test data health monitoring and time slicing pipeline.
- Created a test data trending tool using a Flask API and React.js front end.
- Scripted an engine sensor configuration check VBA tool

### Raytheon Integrated Defense Systems – Tewksbury, MA

*Mechanical Engineer II | June 2017 – September 2017*

- Provided mechanical systems design support for the MIM-104 Patriot Missile Defense System

### Textron: Weapons and Sensor Systems – Wilmington, MA

*Associate Mechanical Engineer | June 2015 – May 2017*

- Supported the Supervised Smart Munition R&D effort for the government Man-in-the-Loop initiative.
- Efforts included overall mechanical design and packaging of PCBs, sensors, and actuators.
- Developed an integrated “self righting” mechanism to properly orient SSM units after deployment.
- Created the mechanical drawing package for the SSM unit as a deliverable the customer.

## Undergraduate Experience

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### Louisiana State University

*B.S. Mechanical Engineering | 3.78 GPA*

### Formula Student Automotive Engineering (FSAE) Tiger Racing

*Designer and Team Captain | June 2012 – May 2015*

- Spearhead the formation of TigerRacing into a multidisciplinary, campus-wide automotive racing club.
- Designed and manufactured suspension and drivetrain components for the 13' and 14' seasons.
- Served as Captain for the 2015 season which contributed to LSU's best performance to date.
- Developed a dynamic vehicle suspension calculator that predicts suspension reaction loads and validated it using sensors during testing.

### Capstone Senior Design – Engine Dynamometer

*Designer | August 2014 – April 2015*

- Was part of a team that designed, manufactured, and prototyped an engine dynamometer capable of testing and tuning engines for SAE clubs and projects.
- Owned the system requirements and designed the drivetrain.

## Additional

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**Proficiencies:** GD&T, Creo, NX, SolidWorks, Ansys, Python, Django, Flask, Pandas, React.js, VBA

**Internships:** BASF Chemical Company Production Intern; LSU Wind Tunnel Research Assistant