Mathew Wheatley

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Professional Experience

Back-end Software Developer: Commerce Intelligence
(Shopify | Seattle, WA (Remote) | January 2021 - Present)

- Closely collaborated with interfacing teams via frequent paired programming as well as code reviews in a continuous integration environment.
- Implemented Ruby type checking via Sorbet on numerous modules to ensure data is properly structured and the code is semantically explicit.
- Created GraphQL query and mutations on a ruby back end to support front-end data requirements.
- Wrote and maintained well-tested code on Ruby on Rails back-end which served data for merchant insights.
- Actively sought out growth opportunities to expand my skill set while balancing all deliverables.

Propulsion Engineer III: BE-3 & BE-3U Rocket Engine Turbopumps
(Blue Origin | Seattle, WA | December 2015 - September 2019)

- Critical and timely redesign in response to life shortfall due to vibrational issues on the BE-3 liquid hydrogen turbopump turbine rotor.
- Test data trending against design analysis predictions to verify performance and integrity as well as gain insight into any shortfalls or unforeseen issues.
- Oversaw of design, analysts, manufacturing, integration, and test engineers with a average team size of five.
- Development of wiki to act as the single source of truth for design, block updates, procurement, schedule, and testing for the BE-3 turbopumps.
- Schedule along with resource planning of design, procurement, inspection, assembly, and integration dates for BE-3 turbopump development as well as production.
- Authoring of two executive level memorandums describing technical issues and recommended path forward.

Design Engineer: AETD Aircraft Engine High Pressure Turbine & Compressor Rotor
(General Electric Aviation | Cincinnati, OH | Jun 2012 - November 2015)

- Design of eight critical rotating parts in the compressor of the AETD jet engine.
- Preparation as well as presentation of numerous design reviews at various stages of design to chief engineers, management, and other top-level stakeholders such as the Air Force.
- Structural, thermal, and vibrational analysis of critical static as well as rotating hardware using the appropriate tools ranging from hand calculations, home grown code, and finite element analysis.

Education History

- *Software Engineering*
    - Flatiron School (Seattle, WA)
    - March 2020 - July 2020
- *Masters of Science in Mechanical Engineering*
    - The Ohio State University (Columbus, OH)
    - September 2012 - May 2014
- *Bachelors of Science in Mechanical Engineering*
    - University of Maryland, Baltimore County (Baltimore, MD)
    - September 2006 - August 2010

Toolbox Summary

Ruby | Ruby on Rails | Minitest | Sorbet | GraphQL-Ruby | JavaScript | TypeScript | React | Redux | Apollo | Bootstrap | Python | HTML | CSS | Markdown | SQL | YAML | Postgres | Flutter | Git | Github | Visual Studio Code | Matlab | Slack | Tuple | Miro | Figma | Zenhub | Photoshop | Lightroom | Illustrator | Premiere Pro | Inkscape | PTC Creo | NX Unigraphics | Fusion 360 | Ansys Workbench/ADPL | PTC Windchill | Primavera P6 | IBM Doors