

# Mathew Wheatley

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## Toolbox Summary

- *Languages:* Ruby, Javascript, Typescript, Go, Python
- *Technologies:* Ruby on Rails, React, GraphQL, ANLTR, Node, Vite, MySQL, Postgres, Git, Github, VS Code, Figma

## Professional Experience

*Back-end Software Developer: Commerce Intelligence*

*(Shopify | Remote | January 2021 - Present)*

- Developed a parser for SQL-like query language in Typescript by leveraging language server protocol and ANTLR. This parser serves as a user-friendly interface for thousands of premium customers. This work was featured in Shopify's [Editions: Summer 2022](#) and [Editions: Winter 2023](#).
- Feature implementation, bug fixes, and maintenance of various critical Ruby and Go backend services which serve millions of customers daily.
- Closely collaborated with cross-functional teams to ensure seamless integration as well as implementation of product requirements end to end and on schedule.
- Continuously improved codebase to reduce technical debt, improve developer experience, as well as ensuring the codebase is easy to understand resulting in reduced time to implement new features.

*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.
- Lead the design, analysts, manufacturing, integration, and test of two turbopump assemblies.
- 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 | June 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, homegrown code, and finite element analysis.

## Education History

- *Software Engineering Bootcamp*
  - Flatiron School (Seattle, WA)
  - March 2020 - August 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