

Andrew Thresher

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Profile

I am an experienced engineer with over five years of developing solutions in the aerospace industry now moving into software development. Over the last 2 years I've worked with Ruby, JavaScript, Go, and more, to develop several projects, most recently the load testing service Constellation [🔗](#).

Technical Projects

Constellation, *Co-Creator, Software Engineer* [🔗](#) 08/2022 – 12/2022

Created an open-source, serverless, framework that simplifies geographically distributed API load testing

- Architected a serverless load-generation system that can produce virtual users and record their actions from any available AWS region using AWS ECS, Timestream, Lambda, DynamoDB, and S3.
- Automated deployment of the load-generation system that reduces dozens of complex AWS CDK calls to two Constellation commands.
- Packaged Constellation using NPM for easy installation and use through the command line.
- Wrote and containerized components to support load generation and monitoring including:
 - a load generation application that can make and monitor HTTP requests following a user-defined test script
 - a data collection system that provides a single stream of data to AWS Timestream per region
 - a data visualizer that provides access to data stored in the database
- Authored the Constellation case study: <https://constellation-load-testing.github.io/case-study.html> [🔗](#)
- Collaborated with an international team of 4 engineers across 4 timezones

Launch School 2021 – 2022

A mastery-based education program providing a solid foundation of software engineering fundamentals

- BinOfRequests: A full-stack application to monitor HTTP requests primarily intended for debugging webhooks (Express, MongoDB, PostgreSQL, React, Nginx, PM2, AWS EC2)
- Shopping Cart: A database-backed e-commerce app (Express, React, MongoDB, Docker)

Professional Experience

Design Engineer II, *Systima Technologies* 2015 – 2021 | Kirkland, WA

- Proposed, designed, and tested novel hot gas, cold gas, and solid propellant actuated devices including ejectors, two-stage retention and deployment mechanisms, and launch systems.
- Performed flight and ground test events, both on- and off-site, for a variety of systems.
- Presented proposals and project updates to government and private customers.

Skills

Back End

Ruby, Node.js, Express, Go, PostgreSQL, MongoDB, Timestream, RESTful APIs

Front End

JavaScript, TypeScript, React/Redux, HTML, CSS

Other

Git/GitHub, Docker, Linux, Heroku, AWS Services, Digital Ocean

Education

B.S. Aerospace Engineering, *Embry-Riddle Aeronautical University*
Honors Program, Sigma Gamma Tau, Silver Wings

2009 – 2014 | Daytona Beach, FL