Andrew Thresher

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
Profile

I am a software engineer coming from an aerospace engineering career with over five years of developing solutions in the aerospace industry. 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* ⧉   09/2022 – 12/2022
Created an open-source framework that simplifies geographically distributed API load testing
- Architected a serverless load-generation system that can simulate users and record their actions from many AWS regions synchronously.
- Automated and streamlined the deployment of cloud infrastructure based on user input, reducing dozens of complex AWS actions to two Constellation commands.
- Developed a command line interface that provides real-time status for multi-regional deployment.
- 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 a central AWS Timestream database
  - a 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

Languages & Frameworks	Technologies	Cloud
Ruby, Sinatra, JavaScript, TypeScript, Node.js, Express, React/Redux, Go, HTML/CSS	PostgreSQL, MongoDB, Docker, Nginx, Git/GitHub, HTTP/REST, NPM	AWS (EC2, ECS, Lambda, DynamoDB, Timestream, IAM), Digital Ocean Droplet, Heroku

Education

B.S. Aerospace Engineering, *Embry-Riddle Aeronautical University*   2009 – 2014 | Daytona Beach, FL
Honors Program, Sigma Gamma Tau, Silver Wings