

# Jason Aricheta

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## </> Technical Experience

### Co-Creator, Software Engineer, Constellation [🔗](#)

Sep 2022 – Dec 2022

Constellation is an open-source tool that makes scalable geo-distributed API load testing accessible to developers.

- Architected a serverless load-generation framework with the capability to simultaneously simulate, record, store, and visualize metrics for up to 10,000 virtual users from 26 distinct geographical locations.
- Developed a system for streamlined deployment of dynamic cloud infrastructure using AWS CDK and implemented a parallelized deployment strategy for multi-regional infrastructure.
- Created a command line interface for real-time updates on multi-regional deployment using asynchronous programming.
- Engineered a consensus mechanism to synchronize load generation from geographically distributed cloud components.
- Developed an event-driven teardown mechanism to minimize uptime costs for serverless components.
- Wrote and containerized the core components such as the load generator and the data aggregator via Docker.
- Created a load generation engine that can generate and monitor a large amount of HTTP requests following a user-defined test script by utilizing Node.js promises and Axios instances.
- Implemented an ELT data pipeline strategy to ensure accurate and precise insights upon aggregating test metrics.
- Collaborated with an international team of engineers from the US & Canada, involving daily standups and pair programming.
- Authored Constellation's comprehensive technical white paper (<https://constellation-load-testing.github.io/case-study.html> [🔗](#)) and produced all front-end assets and animations for Constellation's website and tech talk.

### Software Engineer, Open-source projects

Dec 2021 – Sep 2022

- **Keep Tabs:** a todo app complete with filter/search, authentication and session persistence (TypeScript, MUI, React, Redux Toolkit, JWTs, Node.js/Express, MongoDB)
- **Cascade Free Voting:** a voting app focused on removing information cascade (JavaScript, React, Node, SQLite3)
- **Bin of Requests:** a tool to debug webhooks (JavaScript, React, MUI, Node.js/Express, MongoDB and PostgreSQL)

## 📁 Professional Experience

### Civil Engineer, AECOM

Jan 2019 – Dec 2021

- Provided earth-stabilizing structural solutions from project proposal, costing, and design to construction monitoring
- Wrote calculation packages & scripts in Python to automate data processing and save costs on projects.
- Mentored several junior engineers, facilitating their learning in project and construction oversight and application of best practices in technical engineering design.

## 🧠 Skills

### Languages & Frameworks

Python, JavaScript, TypeScript, Node.js, Express, React, Redux (and Redux Toolkit), HTML/CSS

### Technologies

PostgreSQL, SQLite3, MongoDB, Docker, Nginx, Git/Github, HTTP/REST, NPM

### Cloud

AWS (Lambda, ECS, Fargate, DynamoDB, Timestream), AWS CDK, Digital Ocean Droplet, Heroku

## 🎓 Education

### Software Engineering, Launch School (Capstone) [🔗](#)

2021 – 2022

Multi-year full-stack software engineering curriculum emphasizing mastery of fundamentals

### Web Development Apprenticeship, Dev Academy [🔗](#)

2022

15 Week Bootcamp focused on 3-tier stack with React, Redux, JS, HTML, CSS and Nodejs

### BE (HONS) Civil Engineering, University of Auckland

2014 – 2019

Specialized in Structural & Geotechnical Engineering. *First Class Honours*