


Jason Aricheta

📧 jaricheta.com 🔄 neebs12 ✉ aricheta.jason@gmail.com 📍 Wellington, New Zealand

</> 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 that can simulate, record, store and visualize metrics of up to 10,000 scripted virtual users from 26 different geographical locations.
- Utilized AWS Cloud Development Kit (CDK) to automate the deployment of infrastructure able to concurrently utilize all AWS regions.
- Engineered a parallelized deployment strategy for multi-regional infrastructure to minimize provisioning time by up to 95%.
- Crafted a consensus mechanism to synchronize geographically distributed components.
- Developed an automated teardown mechanism to minimize uptime for serverless components, to minimise costs.
- 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 per region that provides a single stream of data to a central AWS Timestream database.
 - a visualizer that aggregates metrics stored in the database.
- Implemented an ELT data pipeline strategy to ensure accurate and precise insights upon aggregating test metrics.
- Collaborated with a 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*