

Jason Aricheta

👉 jaricheta.com in jason-aricheta 🔄 neebs12 ✉ aricheta.jason@gmail.com 📍 Wellington, NZ

</> 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 via Docker, such as the load generator and the data aggregator.
- Created a load generation engine that generates and monitors a large volume of HTTP traffic 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 a remote/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 featured with filter/search, authentication and session persistence (TypeScript, MUI, React, Redux Toolkit, JWTs, Node.js/Express, MongoDB)
- **Cascade Free Voting:** a multi-player voting app with a focus on removing the cognitive bias of information cascade by hiding vote counts from participants until all have voted (JavaScript, React, Node.js, SQLite3)
- **Bin of Requests:** a mock-bin clone web app used to debug webhooks (JavaScript, React, MUI, Node.js/Express, MongoDB and PostgreSQL)

📁 Professional Experience

Civil Engineer, AECOM Jan 2019 – Dec 2021

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

🧠 Skills

Languages & Frameworks

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

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) [🔗](#)

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

BE (HONS) Civil Engineering, University of Auckland

2014 – 2019

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