

Jason Ng

Software Engineer

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PROFILE

I'm a voracious learner and resilient problem solver with multiple years of experience in the JavaScript and Ruby ecosystems, as well as Docker and Infrastructure-as-Code deployments using AWS. Most recently, I built Canopy, an open-source low-config monitoring framework, designed specifically for CDNs.

EXPERIENCE

Software Engineer, Creator, Canopy, (canopy-framework.github.io) 📄 04/2023 – present

- Architected an end-to-end pipeline for streaming Amazon CloudFront CDN logs to ClickHouse and visualizing metrics on real-time dashboards in Grafana, making it easier for developers to debug their CDN traffic
- Reduced buffering latency to a customizable amount (as low as 0 milliseconds) via a custom streaming solution engineered in AWS Lambda
- Implemented a buffer for re-streaming and retrying failed logs using AWS Lambda and Kinesis Data Streams, and a dead-letter queue using AWS SQS for routing failed logs to persistent storage
- Containerized and configured Canopy's backend infrastructure, including Vector, ClickHouse and Grafana for deployment on a single Docker network
- Implemented native support for monitoring parallel CloudFront distributions by automating their attachment and detachment to and from the pipeline, while tracking their meta-data with SQLite
- Automated 50+ AWS steps down to a single deploy command by writing AWS CDK code and deploying CloudFormation stacks
- Created a CLI to facilitate configuration, deployment, and teardown of the pipeline
- Collaborated remotely with a team of four software engineers across multiple time zones
- Authored a technical case study on Canopy's problem domain, architecture, challenges and design decisions (canopy-framework.github.io 📄)

Software Engineer, Open-Source Contributor 11/2021 – 04/2023

Developed open-source web applications, some highlights projects include:

- Request Warehouse: a real-time tool for debugging and testing webhooks (Node.js, Express, React, MongoDB, PostgreSQL, WebSockets)
- Done & Done: an interactive to-do list manager (Node.js, Express, SQLite, JavaScript, HTML, CSS)
- My Cookbook: a personal recipe keeper organized by cuisine (Ruby, Sinatra, PostgreSQL, HTML, CSS)

Futures Trader, Self-Employed 2011 – 2021

- Executed split-second decisions for trading index futures, based on technical analysis of volatility chart patterns, order flow, momentum of price movement and market conditions.

SKILLS

Backend

Ruby, Node.js, Express, Sinatra, PostgreSQL, MongoDB, ClickHouse, WebSockets, RESTful APIs

Frontend

JavaScript, React, Jest, jQuery, HTML, CSS

Cloud

AWS: CDK, SDK, EC2, CloudFront, Kinesis Data Streams, Firehose, S3, SQS, Lambda, IAM, VPC, CloudFormation, ECS; DigitalOcean Droplets; Heroku

Other Technologies

Docker, Git, GitHub, Grafana, Linux, Bash, Nginx

EDUCATION

Launch School, *Software Engineering & Full-Stack Development* 11/2021 – 04/2023

Baruch College, *B.B.A. Accountancy*