Jason Wang

✒ jasonherngwang.com   ✉ jasonherngwang@gmail.com   📍 Los Angeles, CA

EXPERIENCE

Software Engineer & Creator, *Seamless CI/CD (seamless-cicd.com)* ↗   Jan 2023 – Present

Created *Seamless*, an open-source, low-config CI/CD pipeline for containerized microservices on Fargate.

- Architected a *Step Functions* state machine to serve as the pipeline orchestrator, enabling robust control flow and parallel execution. Wrote CDK code to provision all pipeline AWS resources, as 13 CloudFormation stacks.
- Containerized 7 TypeScript apps so each pipeline stage could run and scale independently; configured *ECS* Task Definitions, *Auto-Scaling group* metrics, a shared Docker volume on *EFS*, and *IAM* policies.
- Developed a RESTful API with *Express.js*, allowing users to link microservices to pipelines and set up webhooks for automatic triggers; used *Octokit* for GitHub interaction and an *API Gateway* to handle requests.
- Engineered a rollback feature to minimize downtime by reverting to any tagged *ECR* image, using the *AWS SDK*.
- Set up notifications (email, Slack, PagerDuty) with *SNS* and *Lambda*, to quickly alert users of deployment issues.
- Built an integration testing feature to validate inter-service functionality using *Docker Compose*.
- Published an npm package ↗ for using *Execa* to emit logs with customizable payloads; cached logs in *Redis*.
- Implemented a relational data model using *RDS for PostgreSQL* and the *Prisma ORM* to facilitate migrations.
- Designed and built a *React* UI for pipeline management, using a *WebSocket API* for real-time status and log streaming to the dashboard, *Zod* for form validation, *GitHub OAuth* for web app flow, *Tailwind CSS*, and *Figma*.
- Authored a case study ↗ on Seamless's problem domain, architecture, challenges, and design decisions.

Software Engineer, *Open-Source Projects during Launch School*   Dec 2021 – Apr 2023

- JaguarBin: A RequestBin-like webhook inspector (*Socket.io, React, PostgreSQL, MongoDB, DigitalOcean Droplet, Nginx*)
- In Season: A seasonal produce tracker (*MERN, bcrypt, JWTs, Jest, Cypress, Docker Compose, AWS EC2, S3, CloudFront*)
- Eight Wonders: A round-the-world flight path optimizer (*Ruby, Sinatra, PostgreSQL, HTML, CSS, fly.io*)

Senior Engineer (Mechanical), *Southern California Gas Company*   Jan 2016 – Nov 2022

- Led a team of 10 engineers and technicians to deliver multiple hydrogen technology demonstration projects.
- Taught staff how to automate data analysis and visualization using *Python* (*Pandas, Jupyter, Plotly*), *SQL*, and *Vue.js*, reducing errors and saving hundreds of hours on manual engineering calculations.

Engineer II (Mechanical), *Southern California Edison*   Aug 2010 – Jan 2016

- Managed updates for 100+ engineering papers to achieve company energy efficiency goals, earning a promotion.

SKILLS

Languages
JavaScript/TypeScript, Ruby, Go, SQL, HTML, CSS

Frameworks & Libraries
React/Redux, Tailwind, Cypress, Jest, Express, Zod

Cloud
AWS CDK, SDK, EC2, ECS, EFS, RDS, Step Functions, S3, CloudFront, SNS, DO Droplets, Heroku, fly.io

Other
Git, GitHub, Node.js, PostgreSQL, Prisma, MongoDB, Mongoose, Redis, RESTful APIs, Docker, Nginx

EDUCATION

Full-Stack Web Development, *Launch School (Capstone)* ↗   2021 – 2023

M.S. Mechanical Engineering, *University of Southern California*   2014 – 2017

B.S. Engineering, *Harvey Mudd College*   2006 – 2010

Professional Engineer License (Mechanical), *State of California*   2014