

# Jason Wang

🐞 jasonherngwan.com   in jasonherngwan   ✉ jasonherngwan@gmail.com   📍 Los Angeles, CA

## PROFILE

---

Software engineer experienced in JavaScript, Ruby, React, Tailwind, Express, PostgreSQL, Docker, and AWS. Formerly a senior mechanical engineer skilled in analyzing complex problems and leading teams to solutions. Recently built *Seamless*, a CI/CD pipeline featuring rollbacks, parallel execution, and a real-time dashboard.

## EXPERIENCE

---

**Software Engineer, Co-Creator**, Seamless (seamless-cicd.com) 📄 Jan 2023 – Present

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

- Architected a state machine (Step Functions) for orchestrating tasks and running multiple pipelines in parallel.
- Developed seven TypeScript apps with ECS Task Definitions so each pipeline stage can run and scale independently; configured auto-scaling metrics, a shared Docker volume on EFS, and IAM policies.
- Engineered a rollback feature so users can minimize downtime by reverting to any tagged image from ECR.
- Built an integration testing feature to validate inter-service functionality using Docker Compose.
- Created 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.
- Published an npm package 📄 for using Execa to emit logs with customizable payloads; cached logs in Redis.
- Set up notifications (email, Slack, PagerDuty) with SNS and Lambda, to quickly alert users of issues.
- 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 WebSockets for real-time status and log streaming, 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 Dec 2021 – Apr 2023

- JaguarBin: A tool for debugging webhooks (WebSockets, React, PostgreSQL, MongoDB, DigitalOcean Droplet)
- In Season: A seasonal produce tracker (MERN, Jest, Cypress, Docker Compose, 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 & Frameworks

JavaScript, TypeScript, Express, React, Jest, Cypress, Zod, Ruby, Sinatra, Python, Go, SQL, HTML, CSS, Tailwind

### Other Technologies

Git, GitHub, Node.js, PostgreSQL, Prisma, MongoDB, Redis, RESTful APIs, Docker, Nginx, WebSockets, Figma

### Cloud

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

## EDUCATION

---

**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