Jason Wang

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EXPERIENCE

Software Engineer, *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*-based state machine to serve as the pipeline orchestrator, which enabled robust control flow and parallel execution, managed environment variables, and integrated with AWS services.
- Containerized seven TypeScript apps so each pipeline stage could run and scale independently on *ECS*; configured 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 a shared pipeline and create webhooks for automatic triggers; used *Octokit* for GitHub interaction and an *API Gateway* to handle requests.
- Engineered rollbacks and notifications so users could respond quickly to issues and minimize downtime by reverting to any service version; used the Docker CLI to tag images and the *AWS SDK* to query *ECR*.
- 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; stored 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.

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

- Led R&D testing and clean energy demonstration projects, as the hydrogen combustion engineering SME.
- Automated data analysis and visualization processes using *Python* (*Pandas, Jupyter, Plotly*), *SQL*, and *Vue.js*.

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

- Managed updates to 100+ engineering papers, enabling the company to achieve energy efficiency goals.

PROJECTS

Open-Source Projects, *Developed during Launch School*   2021 – 2023

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

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)* ↗   Dec 2021 – Apr 2023

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

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

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