Ethan Weiner

TECHNICAL EXPERIENCE

Software Engineer & Co-Creator, Seamless CI/CD

Jan 2023 – present

Seamless (seamless-cicd.com $\mathscr E$) is an open-source, low-config CI/CD pipeline for containerized microservices on ECS.

- Architected a serverless state machine (AWS Step Functions) for orchestrating tasks and running pipelines in parallel.
- Developed 7 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.
- Composed CDK infrastructure-as-code to automated resource provisioning with a CLI (published as an npm package

 ∅) that performs a one-command deployment of 13 CloudFormation stacks.
- Transformed a linear pipeline flow into an adaptable system supporting 8 different CI/CD workflows and Git branching strategies (GitHub flow, trunk-based) with various merging, staging, and continuous deployment options.
- 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.
- Implemented a relational data model using RDS for PostgreSQL and the Prisma ORM to facilitate migrations.
- Set up a WebSockets API to facilitate near real-time status updates and log streaming to a React UI hosted on S3.
- Designed an integration testing feature to validate inter-service functionality using Docker Compose.
- Optimized for scale by configuring auto-scaling cloud infrastructure, including Elastic Load Balancer, ECS, Fargate, and Elasticache; load-tested with AWS and k6.
- Authorized secure access to private user repositories by implementing Github's OAuth web flow.
- Led the authoring of a technical case study \mathscr{D} on Seamless' problem domain, architecture, and design decisions.

Full Stack Software Engineer, *Self-Employed*

May 2020 – Jan 2023

Developed open-source software; selected projects include:

- JaguarBin: A real-time webhook debugging tool (Socket.io, Nginx, PostgreSQL, MongoDB, Digital Ocean Droplet).
- BloomShare: A community-oriented plant query tool and inventory manager (Ruby, Sinatra, PostgreSQL, Heroku).
- The Smooches: A Dockerized slideshow application (MERN, Docker Compose, EC2, S3).
- Visualize the Web: A geographic simulator and visualizer of packet transmission between IP addresses for an HTTP request/response cycle (Python, Flask, JavaScript).
- Playlist Blender: An app that combines playlists from music streaming services (Vue, JavaScript, RESTful APIs).

Software Engineer, *Reelin' Landscaping*

May 2021 – Jan 2022

• Built JobItinerary, a cross-platform progressive web application (PWA) for tracking employee work, compensating employees, and invoicing customers; used to manage 20+ clients (Vue.js, Ionic, Firebase).

SKILLS

Languages

JavaScript, TypeScript, Ruby, Go, Python, SQL

Cloud

AWS CDK, SDK, API Gateway, EC2, ECS, EFS, RDS, Step Functions, S3, CloudFront, SNS, Digital Ocean Droplets, Firebase, Heroku

Frameworks & Libraries

React/Redux, Express, Vue, Sinatra, Zod, Flask, Ionic

Other

Git, Github, Node.js PostgreSQL, MongoDB, Docker, HTML/CSS, Nginx, Prisma, Bash,, Jest, Cypress, HTTP, REST, WebSockets

TECHNICAL CONTENT CREATION

- Maintained an active Youtube channel \mathscr{D} posting videos on web development, networking, algorithms, and more.
- Published comprehensive blog posts ∂ on a range of technical subjects, including programming and learning.

EDUCATION

Core and Capstone Program, *Launch School ∂*

Sep 2021 – Apr 2023

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

Northeastern University

Sep 2020 - Jan 2021

Completed Coursework: Fundamentals of Computer Science, Discrete Structures, Intro to Mathematical Reasoning