Trent Cooper

Software Engineer

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Technical Experience

Co-Creator, Software Engineer, *Tailslide (tailslide-io.github.io)* ⌘   2022 – present

Tailslide is an open-source feature flag framework with automated failure protection, designed to simplify code deployment and feature release.

- Constructed a full-stack application for management of feature flag and circuit breaking functionality with an Express backend, PostgreSQL database, and a React/Redux Toolkit dashboard.
- Managed real-time communication with fault-tolerant async messaging and event streaming using NATS JetStream.
- Developed server-side SDKs for evaluating feature flags and emitting circuit telemetry data in Go, Javascript, Python and Ruby.
- Designed and implemented a circuit breaker stability pattern with automated recovery by coordinating communication between SDK instances, a RedisTimeSeries cache, a Node.js app, and the Express backend.
- Led design of React dashboard following Material Design principles using Material UI.
- Implemented real-time circuit health visualizations by leveraging websocket connection to NATS.
- Solved challenges related to horizontal scaling of microservices, such as consistency, availability and load on the feature flag framework in order to handle multiple applications and their scaled instances.
- Automated framework deployment and containerized all components with Docker
- Configured unit testing for the Express backend, a Node.js app, and SDK components using Jest.
- Authored documentation and a comprehensive technical case study ⌘ describing Tailslide's architecture and the engineering trade-offs encountered during implementation
- Collaborated remotely with a team of 4 software engineers across North America.

Software Engineer, *Self Employed*   2020 – 2022

Developed multiple open-source full-stack web apps including:

- ReqBin: a tool to receive and debug webhooks (Node.js/Express, PostgreSQL, MongoDB, React/Redux)
- Ello: a kanban-style app for task/deadline management (Node.js/Express, MongoDB, React/Redux Toolkit)
- U-Do: a to-do tracker with user login/state and custom theming (Node.js/Express, PostgreSQL, MongoDB, Pug, Deployed on DigitalOcean Droplet with Nginx + PM2)

Skills

Languages
JavaScript, Go, HTML/CSS

Frameworks
Express, React, Redux, Handlebars, Jest

Cloud
AWS (EC2 | S3 | DynamoDB) , DigitalOcean (Droplets), Heroku

Tools
PostgreSQL, MongoDB, Redis, Node.js, Docker, Git, HTTP, Bash, REST APIs, NATS, Nginx, OOP, MVC

Professional Experience

Technical Designer, *Club Monaco / Ralph Lauren*   2017 – 2022 | NYC

- Translated design concepts into technical instructions for manufacturing.
- Daily communication with cross-functional team, overseas partners
- Managed multiple product categories; drove 50+ products from ideation to production each quarter.

Education

Launch School, *Software Engineering* ⌘   2020 – 2022

Indiana University Bloomington, *B.A. in Technical Design*   2010 – 2014