William Yennie

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EXPERIENCE

Software Engineer; Co-creator, *Firefly* ⧉   08/2022 – present

Firefly is an open-source observability framework, providing an overview of serverless function health through the use of metrics and traces.

- Prototyped and built Firefly using Node.js, OpenTelemetry and Amazon Web Services (Lambda, Metric Stream, Firehose, S3, IAM).
- Created a CLI to automatically instrument Lambda functions and set up AWS infrastructure to emit metrics from CloudWatch and published as an NPM package.
- Automated AWS infrastructure setup and teardown through the use of the AWS SDK and Terraform.
- Wrote middleware to handle context propagation in traces for asynchronous, event-based Lambda invocations.
- Built a custom OpenTelemetry collector to receive metric and trace data.
- Architected telemetry pipeline which utilized OpenTelemetry, Promscale (timeseries database), and Grafana.
- Reduced telemetry pipeline set up down to 2 steps using Docker (images, network, docker-compose).
- Designed Grafana dashboards to display serverless function telemetry data using SQL queries.
- Collaborated with a remote team of 4 engineers across 3 countries using agile workflow.
- Authored technical case study on Firefly's development and use case (read the case study here ⧉).

Software Engineer, *Self Employed*   2020 – 2023

Created open-source applications using various technologies:

- HookScope: A database-backed web application for inspecting and debugging webhooks. Built with Node.js, Express, Handlebars, Ngrok, PostgreSQL.
- FlightWise: Web application for tracking and visualizing flight paths from specific airlines and airports. Built with React, Node.js, Express, MongoDB.
- TaskVault: A task tracking web app with a RESTful API. Built with Ruby, Sinatra, ERB, PostgreSQL.
- ShopSense: An e-commerce shopping cart application. Built with React, Express, Node.js and MongoDB.

SKILLS

Languages
Ruby, JavaScript, Golang, SQL, HTML, CSS

Frameworks & Libraries
React, Redux, Express, jQuery, Jest, Cypress, Sinatra, Handlebars

Cloud
AWS (Lambda, EC2, SDK, CloudWatch, IAM, S3), DigitalOcean

Other Technologies
Git, Docker, Linux, PostgreSQL, MongoDB, Terraform, REST API, OpenTelemetry, Nginx

EDUCATION

Launch School, *Full Stack Web Development*
Multi year mastery based curriculum focused on fundamentals of programming.
Core Curriculum: OOP, Data Structures, Flow Control, REST, Network, Database
Capstone: Advanced Algorithms & Data Structures, System Design, just-in-time learning