William Yennie

Software Engineer

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TECHNICAL EXPERIENCE

Creator; Software Engineer, *Firefly* ↗   September 2022 – December 2022

Firefly is an open-source observability framework, providing a comprehensive 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 setup AWS infrastructure to emit metrics from CloudWatch; published as an NPM package.
- Automated AWS infrastructure setup and teardown through the use of the AWS SDK and Terraform.
- Engineered middleware to handle context propagation in traces for asynchronous, event-based Lambda invocations.
- Built a custom OpenTelemetry collector to receive metric and trace data from different sources.
- Architected telemetry pipeline which utilised OpenTelemetry, Promscale (timeseries database), and Grafana.
- Reduced telemetry pipeline set up to a two-step process 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

Software Engineer, *Self-employed*   March 2021 – January 2023

Created open-source applications using various technologies: JavaScript, Node.js, Express, React, Ruby, Sinatra, Go, SQL, MongoDB, HTML and CSS.

- Request Bin - Requestbin clone for viewing web hooks. (Node.js, Express, Handlebars, Ngrok, PostgreSQL)
- Airline Tracker - Tracks times and flight paths from airport to airport. (React, Node.js, Express, MongoDB)
- Todo List - Simple todo-list tracker application. (Ruby, Sinatra, ERB)

SKILLS

Back End	Front End	Tooling	AWS Services
Node.js, Express, Ruby, Sinatra, GO, PostreSQL, MongoDB, RESTful APIs	JavaScript, React, HTML/CSS, jQuery	Digital Ocean, Docker, Git/GitHub, Linux, Bash, OpenTelemetry, Terraform, Grafana, Nginx	Lambda, Cloudwatch, Kinesis, IAM, S3, API Gateway, SQS, SNS, EC2

EDUCATION

Launch School, *Software Engineering*   March 2021 – January 2023

Long-term mastery based education program focused on the fundamentals of programming