William Yennie

Software Engineer

★ willyennie.com wryennie@gmail.com Sag Harbor, NY

TECHNICAL EXPERIENCE

Creator; Software Engineer, *Firefly* □

October 2022 - December 2022

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 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.
- 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

- · Attended Long-term mastery based education program focused on the fundamentals of programming
- Created open-source applications using various technologies;
 - Gouda Request: A RequestBin clone for viewing web hooks. (Node.js, Express, Handlebars, Ngrok, PostgreSQL)
 - Airline Routes: Tracks 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, | JavaScript, React, | Digital Ocean, Docker, | Lambda, Cloudwatch, |
| Sinatra, GO, PostreSQL, | HTML/CSS, jQuery | Git/GitHub, Linux, Bash, | Kinesis, IAM, S3, API |
| MongoDB, RESTful APIs | | OpenTelemetry, | Gateway, SQS, SNS, EC2 |
| | | Terraform, Grafana, | |
| | | Nginx | |

EDUCATION

Launch School, Software Engineering

March 2021 - January 2023

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