

# William Yennie

## Software Engineer

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### TECHNICAL EXPERIENCE

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#### Creator; Software Engineer, *Firefly* [🔗](#)

October 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

- 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

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#### Back End

Node.js, Express, Ruby,  
Sinatra, GO, PostgreSQL,  
MongoDB, RESTful APIs

#### Front End

JavaScript, React,  
HTML/CSS, jQuery

#### Tooling

Digital Ocean, Docker,  
Git/GitHub, Linux, Bash,  
OpenTelemetry,  
Terraform, Grafana,  
Nginx

#### AWS Services

Lambda, Cloudwatch,  
Kinesis, IAM, S3, API  
Gateway, SQS, SNS, EC2

### EDUCATION

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#### Launch School, *Software Engineering*

March 2021 – January 2023

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