Stephen Johnston

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PROFILE

I am a full-stack developer based in Guelph, Ontario. Recently, I built Herald, an open-source observability solution built on the ELK (Elasticsearch, Logstash, Kibana) stack. I have experience working with JavaScript, Ruby, PostgreSQL, MongoDB, React, AWS and Docker.

EXPERIENCE

Software Developer, Co-Creator, *Herald* 🔗   Jan 2023 – May 2023

Herald is an open source application that simplifies deployment of a full observability solution for logs, traces and metrics.

- Engineered the automatic provisioning and deployment of an observability pipeline, condensing a complex multi-application deployment (Elasticsearch, Logstash, Kibana, Fleet Server) into just a few simple steps.
- Designed and implemented a distributed architecture using AWS Cloud Development Kit (CDK).
- Abstracted application components and services into custom CDK constructs for deployment on AWS resources.
- Reduced pipeline congestion and potential data loss by architecting a multi-cluster, autoscaling Elasticsearch service with automated node discovery.
- Implemented infrastructure for automated certificate generation for enabling TLS encryption across all application services.
- Containerized applications and solved complex configuration issues by building custom Docker images.
- Created a CLI to facilitate set-up, configuration, deployment, and tear-down of the Herald application.
- Authored comprehensive case study discussing the use case, design decisions, and implementation challenges of building Herald. (https://herald-app.github.io/) 🔗
- Collaborated with a remote team of 4 developers across 3 time zones using an agile workflow.

Software Developer, *Self-employed*   Oct 2019 – Jan 2023

Developed open-source web applications with technologies such as JavaScript, Node.js, Ruby, Sinatra, PostgreSQL, MongoDB, Jest, React, CSS, and HTML. Sample projects include:

- PanicBin - a real-time tool for receiving and monitoring webhooks (DigitalOcean Droplet, Express, Material UI, MongoDB, Nginx, Node.js, PM2, PostgreSQL, React)
- BuyPal - an e-commerce shopping-cart app (Node.js, Express, MongoDB, React)
- Taskify - productivity app for tracking and managing habits and tasks (Node.js, Express, JavaScript, Handlebars)

SKILLS

Languages *(JavaScript, Ruby, Go, SQL, CSS, HTML)* | **Frameworks** *(React, Express, Sinatra, Handlebars, jQuery)*

Cloud *(AWS CDK, EC2, ECS, EFS, IAM, Lambda, VPC, CloudMap, CloudWatch, Fargate; Digital Ocean Droplets; Heroku; Fly.io)*

Other Technologies *(Node.js, Git/Github, Docker, Nginx, MongoDB, Bash, Jest, RESTful APIs, Linux, PostgreSQL, Webhooks, Elasticsearch)*

EDUCATION

Bachelor of Commerce, Marketing, *Saint Mary's University*

Software Engineering & Web Development, *Launch School*
A multi-year, mastery-based education program focused on the fundamentals of software engineering.