



Matthew Johnston

Software Engineer

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Experience

- 2023 – present **Software Engineer, Creator, Herald** (<https://herald-app.github.io/>) 
- Herald is an observability solution that allows software developers to conveniently collect and explore telemetry data, including logs, traces, and metrics, through a single, user-friendly interface.
- Engineered the automatic provisioning and deployment of a data pipeline for the collection, processing, storage, and visualization of logs, traces, and metrics data.
 - Created CLI tool to facilitate set-up, configuration, deployment, and tear-down of the ELK stack—Elasticsearch, Logstash, and Kibana—on AWS.
 - Automated cloud deployment of multiple Elasticsearch and Logstash clusters, and a single node of Kibana using AWS CDK.
 - Architected the generation and storage of certificates to ensure secure communication of pipeline components using TLS encryption.
 - Containerized components of pipeline infrastructure with appropriate dependencies and runtime environments using AWS ECS.
 - Engineered service discovery using AWS Cloud Map to ensure successful communication among infrastructure components.
 - Implemented auto-scaling of Elasticsearch cluster based on a CPU-utilization target.
 - Authored comprehensive case study (<https://herald-app.github.io/> ) discussing the use case, design decisions, and implementation challenges experienced when building Herald.
 - Collaborated with a remote team of 4 developers across Canada and the U.S. using agile workflow.
- 2019 – 2023 **Software Engineer, Self-Employed**
- A few of the projects & technologies used during this time:
- PanicBin: an application for receiving and debugging webhooks (Node, Express, MongoDB, PostgreSQL, React).
 - SwiftCart: an e-commerce shopping-cart app (Node, Express, MongoDB, React).
 - TaskMate: a task management app that allows users to build todo lists and track their tasks (Node, Express, JavaScript, Handlebars, HTML, CSS).
- 2015 – 2022 **Writer, Investopedia**
- Researched financial and economic topics and wrote related articles.
- 2015 – 2021 **Adjunct Professor, St. Stephen's University**
- Taught Intro to Macroeconomics and Intro to Southeast Asian History.

Technical Skills

Languages/Frameworks

JavaScript, TypeScript, Ruby, Go, Python, Express, SQL, React, HTML, CSS, Jest

Other Technologies

Git/GitHub, Node.js, Docker, Nginx, PostgreSQL, MongoDB, RESTful APIs, Linux

Cloud

Digital Ocean Droplet, AWS (CDK, ECS, EC2, Fargate, Cloud Map, Lambda, and EFS), Heroku

Education

- 2012 – 2014 **M.A. Economics, The New School for Social Research**
- 2003 – 2007 **B.A. Interdisciplinary Studies, St. Stephen's University**