Kowshik Islam

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🐙 https://github.com/KowshikI87   🕊 https://kowshikislam.dev/

Experience

Software Engineer, Co-Creator, *Herald* ↗   2023 – present │ Remote

Herald is an open-source observability solution for distributed applications, encompassing metrics, traces, and logs. Built upon the robust ELK Stack (Elasticsearch, Logstash, and Kibana), Herald prioritizes scalability, ensuring that it accommodates a team's growing application performance monitoring needs.

- 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 microservice architecture using AWS Cloud Development Kit (CDK).
- Abstracted application components and services into custom CDK constructs for deployment on AWS resources.
- Architected a multi-cluster, autoscaling Elasticsearch service, ensuring real-time data ingesting and indexing even under 100x normal load.
- Implemented infrastructure for automated certificate generation to enable TLS encryption across all application services.
- Containerized applications and solved complex configuration issues by building custom Docker images.
- Created 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 three time zones using an agile workflow.

Software Engineer, *Self-employed*   01-2021 – 12-2022 │ Remote

Developed open-source web applications with technologies such as Node.js, PostgreSQL, React, JavaScript, HTML, and CSS. Some highlighted projects include:

- Panicbin: a real-time tool for receiving and monitoring webhooks (DigitalOcean Droplet, Express, Material UI, MongoDB, Nginx, Node.js, PM2, PostgreSQL, React)
- TaskMinder: A task management application developed using vanilla JavaScript for the frontend and Node.js/Express for the backend, designed to track and organize personal tasks efficiently.

Mechanical Engineer, *OFGO Studio*   02-2019 – Present │ Vaughn, Canada

- Built an intelligent CAD Library and a desktop application using VB.NET for state-of-the-art integration between ERP and SolidWorks that decreased product development time by up to 50%.
- Developed a drag-and-drop CAD interface with SWOOD Design to increase design speed by 25%

Languages and Technologies

Back End	Front End	Cloud Technologies
Node.js, Express, Java, RESTful APIs	HTML, CSS, JavaScript, TypeScript, React, jQuery	AWS CDK, ECS, EC2, Fargate, IAM, EFS, VPC, Lambda, CloudWatch, Cloud Map
Databases	**Other**	
PostgreSQL, MongoDB, SQLite	Git, Docker	

Education

BSc in Computer Science, *Toronto Metropolitan University*   09-2020 – Present │ Toronto, Canada

Software Engineering, *Launch School*   01-2021 – 12-2022 │ Remote

BEng in Mechanical Engineering, *Toronto Metropolitan University*   09-2011 – 06-2016 │ Toronto, Canada