

# Kowshik Islam

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🔗 <https://github.com/KowshikI87> 🖱 <https://kowshikislam.dev/>

## Experience

**Software Engineer, Co-Creator, Herald** 📄 01-2023 – 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 a 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%.
- Mentored and trained junior engineers.

## Languages and Technologies

### Back End

Node.js, Express, Java, RESTful APIs

### Front End

HTML, CSS, JavaScript, TypeScript, React, jQuery

### Cloud Technologies

AWS CDK, ECS, EC2, Fargate, IAM, EFS, VPC, Lambda, CloudWatch, Cloud Map

### Databases

PostgreSQL, MongoDB, SQLite

### Other

Git, Docker

## Education

**BSc in Computer Science, Toronto Metropolitan University**

09-2020 – Present | Toronto, Canada

**BEng in Mechanical Engineering, Toronto Metropolitan University**

09-2011 – 06-2016 | Toronto, Canada