Kowshik Islam

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LANGUAGES AND TECHNOLOGIES

Languages & Frameworks	**Cloud Technologies**	**Other Technologies**
JavaScript, Node.js, Python, C#, TypeScript, Java, Express, React, SQL, HTML, CSS, Storybook	AWS CDK, ECS, EC2, Fargate, IAM, EFS, VPC, Lambda, CloudWatch, Cloud Map	PostgreSQL, MongoDB, SQLite, Git, Docker, RESTful APIs, Nginx, RabbitMQ, Elasticsearch, Kibana, Logstash

EXPERIENCE

Software Integration Engineer, *OFGO Studio* ↗   02-2019 – Present │ Vaughn, Canada

Led the transformation of the engineering process by designing and integrating software that modernized design methods, ensuring faster and error-free product design and manufacturing.

- Designed and implemented a comprehensive software system comprised of a Task Creator and a Distributed Task Scheduler that converts product orders into a set of tasks and allocates those tasks to worker nodes
- Leveraged a Low-Code tool to create modular design elements that automated and streamlined product engineering, reducing errors, shortening design time, and improving output quality.
- Created other applications using Python, VB.NET, and C# to automate data transformation, simplify parts replacements, etc., leading to improved operational efficiency.
- **Tech Stack**: C#, Python, VB.NET, Elasticsearch, Kibana, RabbitMQ, Microsoft SQL Server Management Studio

Software Engineer, Co-Creator, *Herald* ↗   01-2023 – 10-2023 │ Remote

Developed Herald, an open-source observability solution, using Elasticsearch, Logstash, Kibana, and AWS to monitor distributed applications in real-time.

- Streamlined deployment and tear-down of a complex application into a few steps using **AWS CDK** and **CLI**, achieving a 99% reduction in setup effort and enhancing user experience.
- Architected a **microservice** structure using AWS CDK, resulting in a scalable, flexible foundation for cloud components.
- Designed an autoscaling Elasticsearch service using the **ECS autoscaling** feature, ensuring continuous data ingestion and indexing during peak loads.
- Implemented automated **TLS encryption** across all services using AWS Lambda, EFS, and custom docker image, bolstering security across Herald's services.
- Resolved configuration challenges by crafting **Docker** images and containers, improving deployment flexibility.
- Authored a detailed case study, providing valuable developmental insights to the community (https://herald-app.github.io) ↗ .
- **Tech Stack:** JavaScript, Elasticsearch, Logstash, Kibana, Fleet Server, AWS CDK, ECS, EC2, Fargate, IAM, EFS, VPC, Lambda, CloudWatch, Cloud Map

SOFTWARE ENGINEERING PROJECTS

- **Panicbin:** A 3-tier application combining React, Express.js, and Node.js, with Nginx as the web server. It features dual-database integration with MongoDB and PostgreSQL and utilizes RESTful API architecture.
- **TaskMinder:** A task management app using vanilla JavaScript (frontend) and Node.js/Express (backend), with user authentication and a RESTful API. It's designed for organizing and tracking personal tasks.

EDUCATION

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

BEng Mechanical Engineering,   2011 – 2016 │ Toronto, Canada
Toronto Metropolitan University ↗