Osama Faqhruldin

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Languages & Tools

- Kubernetes
- Go
- AWS
- Istio
- Terraform
- Docker
- Git
- Bash
- SQL
- Python
- C
- C++
- Django
- C#
- React
- Node.JS
- TypeScript
- Java
- Assembly
- VHDL
- ASP.NET
- Kafka

Skills

- Highly skilled in AWS, cloud-native technology and infrastructure.
- Experienced with architecting solutions to use Infrastructure as Code tools, such as Terraform and AWS CloudFormation to automate infrastructure management and reduce manual workload.
- Experienced with Architecting and developing MicroServices.
- Skilled with both Containerization and Container Orchestration Systems, specifically Kubernetes.

Work Experience

Software Engineer - GitOps

***Thomson Reuters**, Toronto, Ontario, Canada – (May 2020 - Present)*

- Architected and led development of new **Kubernetes** Ingress Pattern using **Network Load Balancers (NLBs);** designed and implemented *zero-downtime* migration procedure to move from **Classic Load Balancers** to new **NLB** solution, ensuring several clusters in pre-production and production environments continued to receive traffic during migration.
- Implemented **Kubernetes Secret Store CSI Driver** across several clusters and migrated ingress certificates from **Kubernetes ExternalSecrets** with *zero-downtime* in pre-production and production environments.
- Designed and wrote several unit tests for infrastructure status and readiness using **Go** to verify post-deployment status through **CICD Pipeline**.
- Provided 24/7 on-call support as part of the engineering team support rotation to customers across several production **Kubernetes** clusters maintaining **SLA** of *99.99% uptime.*

Software Development Intern

***Thomson Reuters**, Toronto, Ontario, Canada – (September 2019 - December 2019)*

- Designed and developed **CICD Pipeline** to enable application developers to easily deploy onto the service mesh platform using **AWS CodePipeline** and **Helm**.
- Developed mission-critical components of the platform using Infrastructure as Code tools such as **Terraform** and **AWS CloudFormation**.
- Architected several components of production-grade **Kubernetes** cluster with an **Istio** service mesh.
- Developed team’s DevOps practices using SDLC principles such as **Git** branching strategies and automating processes by implementing the **GitOps** methodology.

Software Engineering Intern

__Flipp__, Toronto, Ontario, Canada – (January 2019 - April 2019)

- Designed core features of different parts of the Snicket platform, a net-new **Event Driven MicroServices** system that leverages **TypeScript-Node**.
- Led the design on Snicket's Database and Product Asset Management MicroService which use **AWS RDS** and **AWS S3** respectively, providing a high business value through automating the management of product images for vendors which includes fetching, cropping, resizing, and storing the images.
- Created multiple improvements and fixes to Snicket's **Docker** and **CircleCI** environments and integrations with **AWS** to increase environment-propagation efficiency.
- Designed **unit tests** and **integration tests** and developed them using **jest** in order to promote a fail often, fail fast environment and improve the reliability of Snicket.

Projects

Vigilant — Final Year Design Project (*8 months)*

- Worked with team to create **YOLO** models to detect specific human postures and perform facial detection in case of potential emergencies.
- Designed and created a **Python** backend system which lived on **AWS ECS** and integrated the **YOLO** models with it.
- Integrated backend with team's **AWS Kinesis** video feed to provide video frames to the detection models.
- Designed and developed a simple **React.JS** frontend in order to display the processed video feed.

Road Pothole Detection System (2 *months)*

- Created a mobile web-app using **React.JS** which turns the user's smartphone into an **Internet of Things** device that provides a data-feed of velocity and acceleration vectors using the phone's gyroscope and geolocation.
- Developed a simple **adaptive algorithm** which attempts to predict the availability of a pothole at the driver's current location based on the acceleration and geolocation data provided by the smartphone.
- Found a success percentage of approximately 65% with limited data used to tune the algorithm.

Education

University of Waterloo

Waterloo, Ontario, Canada

Bachelor of Applied Science in Computer Engineering Honours Program — June 2020

AWS Certification

AWS Certified Solutions Architect - Associate — January 2020

View certificate at: https://www.credly.com/badges/701b5a9e-582b-4560-9909-df1c80d9334a/public_url