Isaac M

M.S – Information Technology

AWS Certified Developer Associate

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Skills

- Infrastructure-as-Code
- Automation and CI/CD
- Cloud-native Architecture
- Cloud Security Posture

Tools

- Python, Node.js, C#
- Terraform, CDKTF, Packer
- Kubernetes (EKS), Helm, Datadog
- GitHub, GitLab, Spacelift

DevOps Engineer – Traive Inc **04/2022 – Present**

- Built a secure multi-account AWS environment, moving workloads from a single AWS account to multiple AWS accounts. This reduced security blast radius, increased workload isolation, and saved upwards of 5 hours per week spent fixing failed deploys
- Designed and deployed an org-wide multi-account network architecture using AWS IPAM. This enabled central management of network space ensuring cross account connectivity with no IP address collisions as well as detailed IP address use history
- Instituted least privilege cloud infrastructure and account access for all principals. This ensured that both human users and service principals had only the amount of access required to perform their tasks, reducing the risk of identity based cyberattacks
- Wrote Terraform modules to allow developers easily spin up infrastructure that meets organizational high availability, compliance, and security standards. These prepackaged constructs skyrocketed developer productivity bringing the time to market for microservices and other infrastructure needs from several weeks to a few minutes
- Built a Change Data Capture (CDC) system that pulled in data from customer systems and streamed these to our application using Kafka on AWS MSK. This allowed us to offer our customers seamless onboarding and eliminated an error prone manual process that involved wrangling customer provided csv files
- Improved security posture by spearheading and enforcing the adoption of centralized secret management. This removed the need for manually managed and shared .env files, eliminated a significant security attack vector, and ensured secret auditability by providing a single source of truth for all secrets created and accessed company wide
- Reduced cloud spend by over 30% by enforcing rigorous tagging of resources. This enabled auditing of running resources as well as stopping resources when not in use
- Improved development velocity by spearheading the move to a trunk-based development strategy
- Evaluated cloud services and built proof-of-concept applications to demonstrate best practices of development using said services for the development teams

Software Engineer – Dow Jones **06/2021 – 04/2022**

- Built microservices that used natural language generation to create automated news articles on stock performance. This allowed end-users to subscribe to and receive updates on their followed stocks in an easy-to-read narrative
- Built a service that leveraged fine-tuned pre-trained large language models to translate natural language questions into an SQL query enabling end-users to query databases using a search engine-like interface
- Built CI/CD pipelines for both traditional microservices and ML services/models using Terraform, Amazon SageMaker Pipelines and AWS SAM to ensure easy deployment
- Wrote unit and integration tests to ensure systems worked correctly for downstream users

Software Engineer – Global Traffic Technologies **06/2020 – 11/2020**

- Wrote AWS Lambda's that leveraged the MQTT message protocol and AWS IoT Core to control traffic IoT devices
- Built components of the user interface for the traffic priority control system using HTML, CSS3, and NodeJS
- Wrote unit, API, integration, and end-to-end tests to ensure soundness of the system and catch errors early
- Improved engineering productivity and software quality by spearheading the deployment of GitHub Super Linter
- Built CI/CD pipelines for deployment of serverless applications and Step functions

Software Engineer – Hennepin County **05/2019 – 04/2020**

- Built chatbots using C#, the Microsoft Bot Framework, and the Azure Bot Service
- Maintained and added features and unit tests to web applications running on .NET Core
- Built CI/CD pipelines to deploy above web applications to Microsoft Azure
- Reduced the time to create reports on software project status by designing and building a work item data warehouse
- Built a serverless application to perform the data ingestion for the data warehouse with Azure Data Factory and SQL Server