



# KARTHIGEYAN B.TECH (CSE)

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#### **Summary:**

DevOps Professional with 2+ years of experience eager to contribute skills and expertise to organization's success. Solid foundation in cloud computing, automation, and infrastructure as code. Proven ability to streamline workflows and enhance efficiency across development and operations teams. Strong communication and problem-solving skills, facilitating effective collaboration with cross functional teams. Dedicated to delivering top-quality results and continuous learning in the DevOps field.

## **Professional Certifications:**

AWS Certified Solution Architect Associate

Microsoft Azure Fundamentals

#### **Technical skills:**

Operating system
Cloud Platform
Linux Administration, Mac and Windows
Amazon Web Services, Microsoft Azure

• Infrastructure Provisioning Tools : Terraform

Containerization Tool
Orchestration Tools
Docker, AWS ECS
AWS EKS, Kubernetes

Automation Tool
: Jenkins, Github Actions, AWS Code pipeline

• Configuration Management Tools : Ansible

Source Code Management
Web Servers
Database
GIT, GitHub, GitLab
Apache, Nginx
MYSOL

• Monitoring Tool : Cloudwatch, Grafana

#### **Educational Qualification:**

- 2018 B.Tech Computer Science Engineering from Achariya College of Engineering Technology, Puducherry (6.9 CGPA)
- 2013 HSC from Wiseman Higher Secondary School (70%)
- 2011 SSLC from Wiseman Higher Secondary School (90%)

## **Technical Expertise:**

- Proficient in **Linux** for application deployment, scripting, and automation.
- Expertise in **Git** for version control and **Ansible** for configuration management.
- Skilled in **Terraform** for infrastructure as code and **Jenkins** for **CI/CD**.
- Competent in **Docker** for containerization and AWS services like **ECS**, **ECR**, and **EKS**.
- Experienced in setting up and managing service meshes using AWS **AppMesh**.
- Proficient in AWS CloudMap for service discovery and AWS X-Ray for monitoring.
- Knowledgeable in **EKS** clusters and **VPC** configuration.

### **Experience:**

# **DevOps Engineer**

# Macappstudio Pvt. Ltd.

02/22 - Present

## Project 1: heycampus (Campus Engagement Platform) (Link: heycampus.app)

- Hosted on AWS using EC2 instances within a VPC for secure networking.
- Managed scalable storage solutions with S3 and Elastic File System (EFS) for efficient data management.
- Implemented Auto Scaling for dynamic resource allocation based on demand.
- Orchestrated load balancing with ELB/ALB to ensure high availability and efficient traffic distribution
- Set up reliable communication systems using Simple Email Service (SES).
- Configured Route 53 for robust domain name management and routing.
- Integrated Jenkins master and slave architecture for continuous integration and delivery.
- Developed a proof of concept (POC) for migrating to Kubernetes using EKS, pending client approval.

#### Project 2: bidz.ai (Procurement Platform) (Link: bidz.ai)

- Implemented scalable infrastructure using EC2 instances and Auto Scaling for dynamic capacity adjustments.
- Managed storage efficiently with Elastic File System (EFS) for seamless data access across instances.
- Orchestrated load balancing with ELB/ALB to enhance application availability and distribute traffic
- Monitored system health and performance using CloudWatch, with custom metrics and alarms.
- Designed and managed reliable communication systems with SES, leveraging RDS for optimized database performance and security, and implementing CloudFront CDN for improved content delivery.

#### Project 3: aussieBum (E-commerce Platform) (Link: aussiebum.com)

- Implemented AWS CloudMap for service discovery and registration of services.
- Utilized AWS **AppMesh** to manage traffic and communication between services.
- Implemented AWS Elastic Load Balancing (ELB) to distribute incoming traffic across services.
- Used AWS Elastic Container Service (ECS) to run containerized services for scalability and high availability.
- Utilized AWS Elastic Container Registry (ECR) to store, manage, and deploy Docker container images.
- Automated the application's release process with AWS **CodePipeline**.
- Improved application performance with AWS Elasticache for **Redis**, which cached frequently accessed data.
- Implemented AWS **RabbitMO** to manage message queues and decouple application components.
- Monitored and visualized application performance metrics with **Grafana**.

# Project 4: Thedoctorsmatrimony & medconnect (Link: <u>medconnectjobs.com</u> & <u>thedoctorsmatrimony.com</u>)

- Utilized AWS services such as EC2, S3, CloudFront, ACM, IAM, and Ansible Playbooks for building a scalable and secure infrastructure.
- Automated the configuration of EC2 instances using Ansible Playbooks, ensuring consistent setups across different environments (Dev, QA, Stage).
- Orchestrated the deployment process to spin up EC2 instances with identical dependencies, enhancing reliability and minimizing configuration drift.
- Leveraged AWS AMIs to capture and replicate custom configurations, streamlining the instance creation process and reducing deployment time.
- Integrated AWS ACM for centralized SSL/TLS certificate management, ensuring secure communication and simplifying certificate handling for deployed instances.

# Project 5: Speedlearning (NEET Prep Platform)(Link: <a href="mailto:speedlearningapp.com">speedlearningapp.com</a>)

- Setting up a LAMP server and the necessary IAM roles.
- Enabling **ELB** with the auto scaling group in order to maintain high throughput.
- Implementing **Amazon EFS** file systems to run this application stable while under heavy load, scalable storage, and output quickly.
- Setup and Managing Database on Amazon RDS using MYSQL.
- Configuring CloudWatch for monitoring instance, RDS & ELB.
- Automated SES Log Process using SQS and SNS Services.
- Maintained edge location to cache data with CDN using **CloudFront**.
- Configuring CloudTrial Logs to monitor the overall operations performed in AWS.
- Using AWS Certificate Manager to securely connect users to this application via cloudfront and the **Route53** DNS services.
- We automate the release process by using **AWS CodePipeline** to test the code and **AWS CodeBuild** to run the builds. Finally, the application is deployed using **AWS CodeDeploy**.
- Configuring a REST API as an Amazon S3 proxy in API Gateway.

## Project 6: 21kschool (Link: 21kschool.com)

- Configuration Management of AWS Services such as EC2 instances, VPC, Cloud formation, ASG and ELB.
- AWS Data Lake Formation is being used for data analytics.
- S3 bucket data is loaded into the AWS Glue Data Catalog using the AWS Glue Crawler.
- Making an AWS Lambda Function to automate the process so that when data is inquired in the S3 bucket, the Glue Crawler is automatically triggered to fetch the data into the AWS Glue Catalog.
- AWS Athena to fetch the structured and unstructured data from the AWS Glue Data Catalog.
- Setting up **cPanel** in **WHM** to use EC2 instances.
- Writing custom JSON files in IAM Policies for restricting developers to access only their own environment.
- Creating cloudformation scripts to launch a new development environment with a set of required servers for developers.
- Cloudflare security and performance configuration.
- Managed distinct security groups for each instance.
- Manage updated AMIs (Golden Images) for each and every instance in the stack, with versioning for each update, for the Backup Process.

# Project 7: Powersoap (Link: powersoaps.online)

- Configuring **cPanel** in **WHM** to use EC2 instances.
- Creating **RDS** for high availability using **Multi-AZ** and **Read-Replica**.
- Managing and migrating DNS entries in Route 53 and other DNS providers.
- In addition, the Lambda service was used to trigger an automated notification when an administrator opens a security group rule globally.
- Configuring CloudWatch to monitor instances, RDS, ELBs

# **Legal KPO Executive**

#### Lumina Datamatics Pvt. Ltd.

03/21 - 02/22

- Performing several knowledge-based solutions such as Engineering services, web application development, CAD/CAM applications.
- Legal processes, Intellectual Property and patent services
- Daily court cases summary updating the customer web using XML scripts.
- Data extraction for optimal usage.
- Ensure quality/quantity of processing is maintained as per the SLA.

# **Document Specialist**

#### **Konrod Solutions Pvt. Ltd.**

11/19 - 12/22

- The coordinator communicates with customs agents, warehouse personnel, the shipping department, forwarders, and clients.
- Making the customer want to clear the goods and Conduct any necessary audits on the transaction.
- Oversee the entire process and ensure compliance with all federal regulations and customs duties.
- Maintain compliance with all import operations by coordinating with all related departments.

# **Financial Manager**

# Lakhi Industries Benin sarl at Benin, West Africa

03/18 - 07/19

- General Ledger Reconciliation and Substantiation and LEC metrics.
- Escalate all issues in time, to the appropriate level, to avoid any adverse impact on the business.
- Exception management including reconciliation and break resolution.
- Reviewing financial reports, monitoring accounts and preparing financial forecasts.
- Investigate ways to improve profitability and analyze markets for business opportunities.