

Bangalore, India
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KARTHIKEYAN VENKATACHALAM

Lead DevOps and Cloud Engineer | AWS Certified | Experience : 7.5 years

AWS Certified Solutions Architect with 3+ years of hands-on experience on Cloud migrations, supporting mission critical deployments of distributed systems, leveraging configuration management, CI/CD, Automation & DevOps processes. Enterprise level experience with AWS, Docker, Apache Mesos and kubernetes, IBM UCD, helping organisations install DevOps for the modern age. Led Agile team of 7 DevOps engineers to slash customer complaints by 40% and release times by 30% through the guided use of CI/CD pipelines.

SKILLS

- **AWS Cloud Engineering:** AWS CDK using Typescript. Practical experience in AWS services like Cloud Formation, Cloud Watch, Cloud Trail, KMS encryption, logging, EKS, ELB, EBS, S3, VPC, IAM, SQS, Lambda, Route 53, ACM, ECR.
- Sound knowledge of SNS, RDS, DynamoDB, WAF, ECS, Read Replicas, Aurora, Redshift.
- Sound knowledge of AWS networking and Calico.
- **Infrastructure as Code:** Cloud Formation
- **Container orchestration:** Apache Mesos, Marathon, Kubernetes.
- Building highly scalable containerised applications using Docker, Universal Container Run- time.
- In-depth knowledge of ELB load balancing and HA-Proxy.
- **Deployment automation:** IBM UrbanCode Deploy.
- **Configuration management:** Environment automation using Ansible.
- **Build and Release management:** Maven, TeamCity.
- **Source and Version control:** GitHub, BitBucket and JFrog artifactory.
- **Logs monitoring:** Splunk, Prometheus.
- **Middleware Servers:** IBM WebSphere ND, BPM, HTTP & ODM and MQ.
- In-depth Knowledge of SSL/TLS certificate management & troubleshooting.
- **Scripting Language:** Bash & python
- **Performance monitoring:** AppDynamics, Grafana.
- Experienced in code and architecture review.
- In-depth knowledge of Micro services architecture, deployment and scalability.
- Continuous deployments using CI/CD.
- Experienced in RHEL and In-depth knowledge in TCP/UDP and environmental issue troubleshooting.
- Development methodologies using Agile.
- In-depth documentation knowledge of HLID, HLSD, Requirement analysis, Solutions on a Page, Production run sheet etc.

EXPERIENCE

Commonwealth Bank of Australia (client of TCS), Sydney Australia – DevOps Lead & Cloud Engineer

Oct 2019 - Present

Portfolio: Payments AWS Modernisation

- Led the migration of Microservices container platform of domestic real-time payments following Agile methodologies with a team of 7+ members from on-premises VMware to public cloud (AWS).
- Worked in CI/CD pipeline development using AWS CDK and GitOps model for automated environment provisioning and deployments.
- Real-time experience with various AWS services like CloudFormation, Networking, CloudWatch, CloudTrail, KMS encryption, logging, EKS, ELB, EBS, S3, VPC, IAM, SQS, Lambda, Route 53, ACM, ECR.
- Experience with developer tools like CodeDeploy, CodeBuild, CodePipeline, design the overall Virtual Private Cloud VPC environment including server instance, storage instances, subnets, high availability zones, Python etc.
- Design and develop automation workflows using GitHub, GitHub webhooks, JFrog Artifactory, Docker, Bash, Python.
- Integrated the Microservices from Public cloud with log monitoring tools including Grafana, Prometheus, AppD and Splunk. Raising alerts and notifications using Alert Manager, AppD and Splunk.
- Design and Integrate Microservices from Cloud platform(AWS) with LDAP, MQ and DB from on-premises infrastructure.
- Worked in integrating the clients(on-premises) to access API hosted on AWS in secured and High Availability using ACM, Route 53 and ALB.
- Led the upgrade of DockerEE and Apache Mesos for NPP PayId and supported Microservices application.
- Performed the SME role of the entire Payments container platform during the Docker upgrade and Cloud Migration.

Commonwealth Bank of Australia (client of TCS), Bangalore India – DevOps Engineer

June 2018 - September 2019

Portfolio: Payments Technology & Engineering(NPP - Australia Real-time Payments)

- Configured the container orchestration platform from scratch in production and other test environments using Apache Mesos, Marathon and HA-Proxy.
- Developed blue-green/canary deployment standard with zero downtime and cut customer complaints by 30%.
- Performed rolling upgrades of container platform with zero outage to consumer applications, slashing release time by 30%.
- Experience in Microservices architecture ensuring loose coupling, troubleshooting and performance checking using Splunk and AppDynamics.
- Created and maintained fully automated pipelines for automated code build/deployments for Microservices in Docker/Apache Mesos.
- Automation of MicroService API to achieve continuous integration and continuous delivery (ci and cd). Configuring various jobs using Teamcity, Maven and IBM UCD for the deployment.
- Experience in working on version control systems like Bitbucket, Git and used source code management tools like git bash, Github and other command-line applications.
- Develop automation processes to enable teams to deploy, manage, configure, scale and monitor their applications through the use of IBM UCD and Python /Shell scripting.
- Honoured multiple times as the best DevOps performer in New Payments Platform (NPP) - Australia's Industry-wide payments platform for fast, flexible and data-rich payments.
- Automation of Java application deployment in IBM WebSphere Application Server using IBM UCD.
- Performed SME role in IBM WebSphere Application server upgrade, troubleshooting, Performance tuning, Certificate Management, runsheet preparation and technical support for production implementation.

- Collaborating with other DevOps engineers to maintain a deployment and management strategy - assisting with creating and maintaining automation and monitoring framework - Developing automation using Shell and Python.

HDFC Life Insurance (client of TCS), Bangalore India – Technical Lead & DevOps Engineer

April 2016 - May 2018

Portfolio: *TEBT (Technology Enabled Business Transformation)*

- Led the team of 5 that supports IBM WebSphere Application server installation, configuration, troubleshooting, Performance tuning, Certificate Management and deployment.
- Led the BPM/SOA segregation for Production and involved in BPM/SOA Migration planning.
- Thread dump analysis, GC logs analysis using IBM Thread and Monitor Dump Analyzer for Java and Pattern Modelling & analysis Tool for Java Garbage Collector respectively
- Thread dump analysis, GC logs analysis using IBM Thread and Monitor Dump Analyzer for Java and Pattern Modelling & analysis Tool for Java Garbage Collector respectively
- Applied fix Packs & Refresh Packs for WebSphere Application Servers and upgrade to the latest versions.
- Analysing application performance and monitoring server parameters using Dynatrace appmon tool.
- Coordinating with resources by working closely with project managers for the release and project manager for all the operational projects.

HDFC Life Insurance (client of TCS), Bangalore India – DevOps Engineer

January 2014 - March 2016

Portfolio: *TEBT (Technology Enabled Business Transformation)*

- Installation, Configuration, Administration and Troubleshooting of IBM WAS, BPM, HTTP, ODM servers on Windows and Linux platforms.
- Automation of server restart, war build, deployment and promotion of war files & ear files using ANT scripting and Python scripting.
- Implemented alerts using nagios and nginx tools for monitoring production servers health status.
- Implementations of Workload Management (WLM) using clustering techniques which include horizontal and vertical clustering to provide Load Balancing, High Availability avoid single-point failure; enhance system persistence and backup/recovery processes.
- Automation of EAR/WAR files deployment in IBM WebSphere Server & BPM using Jenkins and Ant Scripting.
- Experience in IBM and Oracle Weblogic servers including IHS, HTTPD, ODM, OBIEE installation, configuration and troubleshooting.

EDUCATION

Bachelor of Engineering – Electronics and Communication Engineering - Sri Krishna Institute of Engineering and Technology , 2009 – 2013, Coimbatore, India

CERTIFICATION

- **AWS Certified Solutions Architect – Associate** 2019 Bangalore, India
- **Agile way of Working Foundation (TCS Internal)** 2016 Bangalore, India
- **IBM Certified System Administrator - WebSphere Application Server Network Deployment V8.0** - 2014 Bangalore, India