

Karthik Bandi

karthikbandi.995@gmail.com | 226-946-8121 | Toronto, ON

Professional Summary:

- Around 5 years of experience in the IT industry in various roles as **DevOps, Cloud Engineer, Build and Release Engineer**, and **Linux System Administrator**, with excellent experience in **Software Integration, Configuration, Packaging, Building, Automating, managing, and releasing** code from one environment to other environment and deploy to **servers, support, and maintenance** under **Unix/Linux/Windows** Platforms.
- Expertise in **AWS** platform and its dimensions of **scalability** including **EC2, Lambda, S3, VPC, IAM, Route 53, Elastic Container Service** (Docker Containers), **Elastic Beanstalk, Auto scaling, CloudFormation, CloudFront, CloudWatch, Security Groups**, and other services of the AWS.
- **Designing and deploying** numerous **applications** utilizing almost all the **AWS** stack (Including EC2, Route53, S3, and IAM) focusing on **high availability, fault tolerance, and auto scaling** in AWS Cloud Formation JSON templates.
- Experience in **Azure Cloud Services** (PaaS & IaaS & SaaS) like **Compute** (Web Roles, Worker Roles), **Caching, Azure Active Directory, API Management, Scheduling, Azure Autoscaling, Azure Virtual Machines, Azure Search, Azure DNS, Azure DevOps Services**, and **Azure VPN Gateway** using **Azure CLI**.
- Knowledge of **Azure Resource Manager** (ARM) and migrating the **on-premises** resources to **Azure** using **Azure Site Recovery** (ASR) and **Azure backups**, creating **virtual machines** by specifying deployment parameters in **Azure Resource Manager** (ARM).
- Created **Terraform** templates to handle **cross-cloud dependencies** and **managed the orchestration to build large-scale multi-cloud infrastructures**.
- **Automated** the implementation of **VPCs, ELBs, security groups, SQS queues, and S3 buckets** by using **Terraform** and used **Terraform** to provision **virtual networks, VM Scale sets, Load Balancers, and NAT** rules.
- Implemented various resources in **Azure** using **Azure Portal**, and **PowerShell** on **Azure Resource Manager** deployment models. Experience deploying **Infrastructure as Code** (IaC) applications using **ARM Templates** (JSON).
- Hands-on experience installing and administering **CI/CD** tools like **Jenkins, Sonar, and Bamboo** and building end-to-end **CI/CD Pipelines** using **Jenkins** and **pushing build artifacts** to **Nexus** using the **Nexus Artifactory** plugin, **Azure Artifactory**. Used **Jenkins** with **SonarQube** to get a better quality of the Source code.
- Experience in working on cluster management on **Kubernetes** to create **Pods, Nodes**, and deploying **microservices** pulled from the **Docker Registry** and managed by **Kubernetes**.
- Proficient in containerization tools such as **Docker, and Kubernetes**, and handled several docker components like **Docker Engine, Docker-Hub, Docker Compose, Docker Registry, Docker Swarm**, and **Orchestration** tools such as **Kubernetes**.
- Worked with **Docker** and **Kubernetes** on multiple cloud providers, from helping developers build and containerize their application (**CI/CD**) to deploying either on public or private cloud.
- Installation and deployment **Management Repository** generated by **Maven** and **Ant Artifacts** and stored the build process using dependency jar. Worked on resolving issues with pom.xml files, integrated **Maven** with **Jenkins** to automate the **Artifacts** build, and uploaded them to the binary repository tools like **Nexus/Artifactory**.
- Automated repetitive tasks and configurations using **Ansible**, reducing manual efforts and improving efficiency.
- Used bug-tracking systems like **JIRA, Bugzilla, and HP Quality Center** to monitor the daily progress and create workflows for the project.
- Hands-on experience with Monitoring and Logging tools like **Prometheus, Grafana, ELK Stack, and New Relic**.

- Expert with **SCM** tools like **SVN, CVS, IBM Clear Case, Bitbucket, TFS, and GIT**. Strong knowledge of concepts like Branches, Merges, and Tags.
- **Expertise** in configuring and deploying instances on Cloud environments and On-Premises Data centers.
- Installed configured, **Monitoring** tools such as **Splunk, Nagios, and AppDynamics** for Resource Monitoring/ Network Monitoring/log trace Monitoring.
- Expertise in writing **Bash Scripts, PowerShell, Perl Scripts** (hash and arrays), and **Python programming** for deployment of Java applications on bare servers or Middleware tools.
- Hands-on experience in branching, tagging & building/releasing strategies using SCM tools like Subversion, GIT, and Bitbucket and maintained build packages using Team Foundation Server (TFS) on Linux & Windows platforms.
- Day-to-day administration of the **Development environment, handling tickets, monitoring, troubleshooting, and Production and Test environment systems, 24x7 on-call support.**
- Hands-on experience in deploying various operating systems across **Linux, Windows, and macOS** environments on cloud instances.
- Utilized **Ansible** as a powerful configuration management tool to automate **routine tasks, deploy critical applications efficiently, and manage changes seamlessly.**
- Wrote **Terraform** scripts for **AWS** infrastructure. Enabled **AWS Config** to monitor changes in AWS accounts and developed **AWS** configuration rules to monitor for unencrypted volumes and untagged resources in accounts.
- Experienced in **System Builds, System Administration, Server builds, Installs, Upgrades, Patches, Migration, Troubleshooting, Security, Backup, Disaster Recovery, Performance Monitoring, and Fine-tuning on UNIX Red Hat Linux Systems.**

Technical Skills:

Cloud Platforms	Microsoft Azure, Amazon Web Services, GCP and OpenShift
Container Tools	Docker, Docker Compose, Kubernetes
Version Control Tools	GIT, SVN, BitBucket, GitLab, GitHub
Deployment Tools	Puppet, Chef, Ansible,
Web/Application Servers	Apache 2.x, 3.x, JBoss, Tomcat, Web Logic (8/9/10), Nginx, Web Sphere 4.0/5.0, IIS.
Monitoring Tools	Nagios, Splunk, Kibana, Grafana, Prometheus, New Relic.
Testing & Ticketing Tools	SonarQube, Jira, ServiceNow,
CI & Build Tools	Jenkins, Maven, Ant,
Scripting Languages	Shell Scripting, Python, PowerShell, Yaml, JSON, Groovy
Languages	C, C++, C#, .Net, Java, J2EE, Node JS
Repository Management	Nexus, Jfrog Artifactory
Operating System	Unix, Linux, RHEL (4. x, 5. x, 6x), Ubuntu (16/14/13/12), CentOS, Windows Server 2003/2008/2012/2016/2019
Networking/Protocol	TCP/IP, DNS, NFS, ICMP, SMTP, DHCP, OSPF, BGP, LDAP and UDP.

EDUCATION

- Post-graduation in Computer Networking, St Clair College, Windsor, Canada between 2017-2019 (2 Yrs.)
- Bachelor of Technology in Computer Science and Engineering, JNTU Hyderabad, India between 2011-2015 (4 Yrs.)

CERTIFICATIONS

- Certified Azure Certified Cloud Practitioner (AZ-400)
- Certified AWS Solution Architect

Professional Experience

MedAvail Tech. INC Mississauga, ON - DevOps Engineer | Nov 2020 – Present

- **Orchestrated** the seamless **migration** of **on-premises** servers to **Google Cloud Platform (GCP)**, ensuring **minimal disruption** and **leveraging** cloud **scalability** for enhanced **performance** and **efficiency**.
- **Led** the **design** and implementation of fully automated **CI/CD** pipelines using **Azure DevOps**, resulting in a **30% reduction** in **software delivery time**. Created pipelines for rapid deployments on **PROD** and **QA** environments, ensuring efficient release cycles.
- Deployed and optimized **two-tier .NET web application** to **Azure DevOps** to focus on development by using services such as **Azure Repos** to **commit** codes, and **Azure Test Plans** to trigger unit tests on the application.
- Created **Azure Pipelines** for **build** and **release** and used **Azure Boards** for support **planning** and **tracking work**, **code defects**, and **issues** using **Kanban** and **Scrum** methods by using other **Azure DevOps Services**.
- Migrating **on-premises** web applications to **Azure Pipelines** by utilizing **ARM templates**, **VPN gateway**, **site-to-site IPsec/IKE VPN**, **DNS server Firewall**, and **Application Gateway**.
- Deployed **microservice** applications on **Azure Kubernetes** by using **Azure Kubernetes service (AKS)**, and **Kubernetes Cluster**, which are responsible for **cluster management**, **Virtual Network** to deploy **agent nodes**, **Ingress API Gateway**, **MySQL Databases**, and **Cosmo DB** for **stateless storage** of external data, and set up **reverse proxy Nginx**, **HAP Roxy** or **Traffic** in the **cluster**.
- Created custom **Docker Images** and worked on building Docker Image from base image using Dockerfile. Worked on all major components of Docker like **Docker Daemon**, **Hub**, **Images**, **Registry**, and **Docker Swarm**, etc.
- Developed **Ansible playbooks**, **inventories**, and custom **playbooks** in **YAML**, encrypted the data using **Ansible Vault** maintained role-based access control by using **Ansible Tower**, and implemented **IT orchestration** using **Ansible** to run tasks in a sequence that can work on different servers.
- Wrote **Ansible playbooks** with **Python SSH** as a wrapper to manage configurations and the **test playbooks** on **AWS Instances** using **Python**. Used the **Ansible Galaxy**, a shared repository for the roles to download, share, and manage the roles.
- Developed **Build** and **deployment Scripts** using build tools **MS Build** in **Azure Pipelines** to migrate from one environment to another environment and utilized **Nexus**, and **SonarQube**.
- Configured **PowerShell** scripts to **automate** the **Azure cloud system** creation including end-to-end **infrastructure**, **VMs**, **storage**, and **firewall** rules. Worked with **PowerShell** to automate **SQL** tasks, environment management-related tasks, and procedures on **Windows machines**.
- Implemented **ELK Stack (Elasticsearch, Logstash, Kibana)** version 7 for comprehensive **monitoring** and **log management**, providing critical insights into system behavior and performance.
- Worked on checking the various HTTP Responses for Rest API by using GET, and PUSH methods with the help of Postman. Deployed various web applications using SOAP, and RESTful Web Services.
- Managed **Azure Container Registry** to store private Docker images, which are deployed, and **Azure pipelines** to **build**, **test**, and **deploy**. **Azure Monitor** to collect **metrics** and **logs**. Configured Monitor to track performance and maintain security and used the **Grafana** tool to collect metrics and queries.
- Working on the application environment to operate at **high availability** in different **Azure** regions by using **CDN**, **Azure Traffic Manager**, **App Services-Web Apps**, **Active Directory**, **Storage Queues**, **Cognitive Services**, **Azure Search**, and **Storage Blobs**, **Redis cache**, and **SQL Database**.
- Created an **Icinga2** dashboard for various applications and **monitored** real-time and historic **metrics**.
- **Created** and **maintained** both **on-premises** and **cloud Infrastructure** for **DEV/UAT /PROD** environments.
- Developed a **PowerShell** script to automate **Active Directory** and **server tasks** and generate reports for **administrators** and **management**.
- **Designed**, **implemented**, and **managed infrastructure** using **Terraform**, and **ARM templates** for **cloud platforms** such as **Azure**.

- Managed multiple **Azure subscriptions** in automating the **Azure VM provisioning, Blob storage, file blobs, and Azure disks for the Azure VM and provisioning** them using **Terraform**.
- Experienced in **migrating on-premises** to **Windows Azure** using **Azure Site Recovery** and **Azure backups** and having good knowledge of microservices in Azure.
- Integrated **Terraform** and Azure DevOps to manage **Azure Databricks**.
- Deployed **load balancer** types such as **Azure Load Balancer, Application Gateway, and Azure Traffic Manager** to distribute the **traffic** across the applications.
- Experience in dealing with **Azure IaaS** Using **Terraform - Virtual Networks, Virtual Machines, Cloud Services, Resource Groups, Express Route, Traffic Manager, VPN, Load Balancing, Application Gateways, and Auto-Scaling**.
- Automated **Cloud Infrastructure** using **Terraform** and **Azure ARM**. Used **Helm** as a **K8s** package manager on **EKS** and **AKS**.
- Wrote **PowerShell scripts** for validating the **ARM templates** and **pre-deployment** and **post-deployment activities**. **Automating in Azure** for the creation of **subscriptions, Resource Groups, and Storage Accounts** using **Windows PowerShell**.
- **Automated repetitive** tasks and configurations using **Ansible**, **reducing manual efforts** and **improving efficiency**.
- **Involved** in the **conversion** of classic **ASP** web applications to the latest **ASP.NET MVC 5** and **React JS**.
- Created **bash** and **shell scripts** to **automate** some of the **services** required in the **environment**.
- **Maintained** and **executed Build scripts** to **automate development** and **production builds** along with being involved in **creating shell scripts** like **Automation of startup and shutdown services/processes**.
- **Managed** more than **500 (troubleshooting, configuring, and administering)** **Linux machines** seated in an On-Premises Data Center.

Environment: Azure, Terraform, Ansible, Docker, Jenkins, .Net, Git, Yaml, Kubernetes, ELK, SonarQube, Shell, PowerShell, Bash, Python, DynamoDB, Cassandra, Tomcat, Nginx, Linux, VMware, Windows Server 2012/2016, MS Office Suite.

BMO - Toronto, ON - DevOps Engineer | Jan 2020 – Nov 2020

- Administered and configured **Jenkins** as a **Continuous Integration** tool and **Configured Jenkins** for doing the **build** in all the **pre/non-production and production environments**.
- Managed **AWS EC2** instances utilizing **Auto-scaling, Elastic Load Balancing, and Glacier** for our QA and UAT environments as well as infrastructure servers for **GIT** and **Chef**. Created a **Jenkins** job to build the **Artifacts** using **Maven** and deployed the **Terraform templates** to create the stack.
- Created **AWS S3 bucket**, performed folder management in each bucket, managed cloud trail logs and objects within each bucket, and created highly available environments using **Auto-Scaling, Load balancers, and SQS**.
- Defined **AWS Security Groups**, which acted as virtual firewalls that controlled the traffic that allowed to reach one or more **AWS EC2 instances**. Worked on **multiple AWS instances**, set the **security groups, Elastic Load Balancer, and AMIs, auto-scaling** to **design cost-effective, fault-tolerant, and highly available systems**.
- Created **VPC** from scratch, Provisioning the naming convention, and CIDR range, Created Internet gateway and attached the Internet gateway to the VPC, and Tagged the default route table automatically provisioned by **AWS**.
- Creating and Managing Virtual Machines in **Windows Azure** and Setting up communication with the selected ports and worked on designing, building, and improving cloud environments on **Amazon Web Services** and **Azure Cloud**.

- Integrated **Jenkins** with **Maven** to build various versions of the source code, configured **Ansible** by developing **Playbooks** to deploy the **Artifacts** from **Nexus repository** onto **WebSphere, WebLogic, and Tomcat application servers**.
- Developed **Azure** Runbooks in **Python** and **PowerShell** to perform the migration of the on-premises infrastructure to the cloud and Configured ARM Templates which are triggered from the Jenkins CI CD pipeline.
- Created master-slave configuration to implement multiple parallel builds, created pipelines to pull the source code from **GitHub** periodically, and performed builds automated **unit test** and code quality analysis with **JUnit plug-ins**, also installed and configured **SonarQube** for static or dynamic code analysis and integrated the **Maven Build tool**.
- We have developed **Ansible** roles and **Ansible** Playbooks for the server configuration and working with **GIT** to store the code and integrate it to the **Ansible** command line to deploy the playbook.
- Wrote several **Ansible** playbooks for automation that were defined through tasks using **YAML** format and ran **Ansible** Scripts to provision Dev and QA servers.
- **Maintained** and **administered Windows** and **Linux Servers** and supported **storage** and **networking** aspects of the **infrastructure** on a **day-to-day** basis. Support the **Security** team when doing **security patch** updates along with **regular patch cycles**.
- Automated weekly releases using **ANT/Maven** for **Java** code compilation and **Maven** Repository integration.
- **Installed** and **managed Red Hat Enterprise Linux 7. X** and **CentOS**, including **package** installation and **patch** management.
- **SonarQube QG** was checked with **shell script** for each **module** and each **microservice** was onboarded to sonar.
- **Maintained** the build servers of **Jenkins** where we had **docker** installed which converted the **Jar** into **image**.
- **Kubernetes** manifest file design as per the **development** teams was handled where we had various kinds of **deployments, daemon sets, services**, etc.
- **Troubleshooting** the **pod** deployment along with **RCA** was performed.
- Implemented **cloud security solutions** to ensure **system integrity and confidentiality**.
- **Managed AWS infrastructure** with **Ansible, Terraform, and custom-built tools**.
- Developed **Python** scripts for **monitoring** and **managing** services across **multiple** servers.
- **24/7 monitoring** of **infrastructure** and participation in **on-call support** with pager duty.
- **Configured** and **managed** internal **yum repository** for **packages** and **patches** installation in **Linux** environment and **Ansible Galaxy** with **Windows Server updates**.
- Test regular **backups** and **restore** and ensure **disaster recovery** works. Maintain **backup** and **restore** tools.
- **Own power user** access privileges to **Windows Active Directory** to provide **access to service accounts, system users, and application users**.
- **Documented** every activity of **DevOps** and **Build operations** in **Confluence**.
- **Wrote** several **Ansible playbooks** for **automation** that were defined through tasks using **YAML** format and ran **Ansible** Scripts to provision **Dev** and **QA** servers.
- Used **JIRA** for project **creation, user permissions, and notifications, tracked progress** against **milestones**, and addressed **potential issues** proactively.

Environment: AWS, Ansible, Kubernetes, Docker, Terraform, Chef, ELK, Grafana, Yaml, PowerShell, Gitlab, Unix/Linux, Shell scripting, Groovy, Python, Git, GitHub, Maven, Jira.

Hammero Technologies Inc., India - Build Release Engineer | May 2015 – Aug 2017

- Designed and implemented **Continuous Integration** and **Continuous Deployment (CI/CD)** frameworks from code deployment using **Jenkins**.
- Defined automation and roadmaps for the team. Worked with teams to understand their needs and drove them toward **Continuous Integration and Delivery**.
- Automated creation of Infrastructure in a cloud environment using **Terraform**, and **Ansible**.
- Designed and Developed Scripts for **AWS Orchestrations**, Maintaining and expanding our AWS Infrastructure, and providing mentorship to other teams.
- Deployed application which is containerized using **Docker** onto a **Kubernetes** cluster which is managed by **Amazon Elastic Container Service for Kubernetes (EKS)**. Configured Kubectl to interact with Kubernetes infrastructure and used **AWS Cloud Formation Templet (CFT)** to launch a cluster of worker nodes on **Amazon EC2** instances.
- Setup of ECS to store the developed microservices in Docker containers.
- Design, Build, Secure, and managed cluster/workloads running on self-managed **Kubernetes (Kops)**, **Amazon EKS (Amazon Kubernetes Service)**, **Amazon ECS**, and **AWS Fargate**.
- **Created a highly scalable multi-cloud platform using Kubernetes as the primary control plane component**, and open-source tools such as **ISTIO**, **NGINX**, **Prometheus**, **Grafana**, and others.
- Involved in deploying the content cloud platform on **Amazon AWS** using **EC2**, **S3**, and **EBS**. Evaluate the **Chef** and **Puppet** framework and tools to automate the cloud deployment and operations.
- Build AWS infrastructure various resources **IAM**, **VPC**, **Security Group**, **Auto Scaling**, **Cloud Watch**, **RDS**, **NACL**, **NAT**, **Firewall**, **Route 53**, and **Cloud Formation JSON Templates**.
- Experience in AWS services for deploying EC2 instances with various flavors including Amazon Linux AMI, RHEL, SUSE Linux, and Ubuntu as well as creating **ELBs** and **auto-scaling** to design cost-effective, fault-tolerant, and highly available systems.
- Using Amazon Web Services (AWS) console and AWS **CLI** to launch and manage VMs with **Public/Private** subnets and set load balancing, security groups, etc. Created Cloud Formation templates and deployed AWS resources like EC2, Auto scaling, EBS, and S3.
- Deployment, and implementation of **Subversion (SVN)** as source control, collaboration, and **QA tool**. Project management, versioning, and blame/issue tracking using Subversion (SVN) created scripts for Backup and restoring **Subversion (SVN)** repositories also migrated source control tool from Clear Case to **Subversion (SVN)** and built tool from **Ant** to **Maven**.
- Installing, configuring, and administering **Jenkins** Continuous Integration tool on Linux machines along with adding and updating plug-ins such as **GIT**, **ANT**, and **Chef**.
- Implemented **Jira** with **Maven** release plug-in for tracking bugs and defects and created **ANT** and **Maven** POMs to automate the build process and integrated them with tools like **SonarQube**, **Nexus**.
- Deployed and configured **Elastic search**, **Logstash**, and **Kibana (ELK)** for log analytics, full-text search, and application **monitoring in integration with AWS Lambda and Cloud Watch**.
- Created **Docker Images** using a Docker file, worked on Docker container **snapshots**, removed images and managed Docker volumes, also deployed **Docker Swarm**.
- Deployed and configured **Elastic search**, Logstash, and Kibana (ELK) for log analytics, full-text search, and application **monitoring in integration with AWS Lambda and Cloud Watch**.
- **Led** the development and deployment of a **Slack chatbot** leveraging **Python** and **Node.js**, integrated with the **Hubot** framework. The chatbot addressed diverse use cases, including Kubernetes and MMS requests, JIRA ticket creation, and user-related queries.
- Designed the terraform scripts from scratch for various AWS components.
- Closely working with Developers, QA, Performance, UAT testers, IT Team. Provided 24*7 support on call.