**PATRICK KWADWO KYEI**

**AWS Solutions Architect & DevOps Engineer**

**PROFESSIONAL SUMMARY**

* **AWS Solutions Architect & DevOps Engineer** with **9+ years** of extensive experience in the **IT industry** with the ability to accomplish all aspects of **UNIX/LINUX system administration**, software configuration management (SCM) process**, Infrastructure, Build and release management, Integration, Deployment, and cloud engineering.**
* Exposed to all aspects of **software development life cycle (SDLC)** such as Analysis, Planning, Developing, Testing, and Implementing and Post-production analysis of the projects.
* Experience with cloud and platform-as-a-service (PaaS) environments, such as Amazon Web Services (**AWS**), Cloud Foundry, and Microservices.
* Experience in using container-based Virtualized deployments using **Docker**, working with **Docker images, Docker Hub, and Docker registries,** and creating **Docker containers** from existing **Linux** servers and saving them to **Docker Hub**.
* Experienced in Cloud automation using AWS Cloud Formation templates, **Python, Ruby, Puppet (DevOps), and Vagrant.**
* Hands-on experience in implementing Cloud Solutions using various **AWS Services** including EC2, VPC, S3, Glacier, EFS, AWS Kinesis, Lambda, Directory Services, Cloud Formation, Ops Works, Code Pipeline, Code Build, Code Deploy, Elastic Beanstalk, RDS, Data Pipeline, DynamoDB, Redshift, etc.
* Expertise in infrastructure as code using **Terraform**, execution plans, resource graphs, and change automation using **Terraform.**
* Experience with **Docker and Kubernetes orchestration.**
* Experience with **Kubernetes** during debugging, leading up to production when multiple application builds must be tested for stability.
* Experience with data processing technologies such as **Kafka/Kinesis, Spark, and Storm.**
* Expertise in scripting languages like **Shell, Bash, Python, Ruby, PERL, and PHP.**
* Experience with automation frameworks such as **Puppet and Ansible.**
* Experience in Automate using **Ansible** and **Python** the configuration, installation, and deployment setup of many systems within Cloud Services including the monitoring system.
* Experience in setting up **Puppet Master, and Puppet Agents** for managing enterprise policies and configurations.
* Expert in **Ansible** and **Ansible Tower** as a Configuration management tool, to automate repetitive tasks, quickly deploy critical applications, and proactively manage change.
* Experience in configuring, monitoring, and alerting tools according to requirements like AWS **Cloud Watch**, **Cloud Trail**, **Dynatrace**, **Nagios**, **Splunk Enterprise**, **Kibana**, and **SNMP monitoring** for VPN connections.
* Experience working on configuration management in Linux using **Puppet** thereby developing Puppet Manifests using **ruby** for provisioning applications and scripts.
* Expertise in building tools like **MAVEN** and **ANT** for the building of deployable artifacts such as war &amp; ear from source code.
* Experience in Web/Enterprise Application Deployment Technology specifically including Windows**, Linux**, **Apache, Tomcat, Web Logic, Java, MS SQL,** and **Oracle.**
* Experience working with **Jenkins** for automated build and continuous integration.
* Good experience in developing projects using **XML, XSLT, SOAP, RESTful, and SQL.**
* Experience in working with version control technologies such as **SVN or Git.**
* Experience setting up and administering both **RDBMS servers (SQL Server, Oracle, PostgreSQL, MySQL) and NoSQL (MongoDB, Cassandra) data stores.**
* Strong interpersonal, time management, project management, and conflict resolution skills and Building, maintaining, and leveraging relationships as well as expert-level verbal and written communication skills.

**EDUCATION**

* BS in Environmental Science

**TECHNICAL SKILLS**

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| **Cloud Services** | Amazon Web Services: EC2, S3, ELB, kinesis, Auto scaling, Elastic Beanstalk, Cloud Front, Cloud Formation, Elastic, RDS, DMS, VPC, Direct Connect, Route 53, Cloud watch, Cloud trail, IAM, SNS., Google Cloud |
| **Containerization Tools** | Docker, Kubernetes, ECS |
| **Version Control Tools** | SVN, GIT Hub, GIT Lab, Bit Bucket |
| **Programming Languages** | C, C#, Bash, Python, Ruby, PHP, Java Script. |
| **Application/Web Servers** | Web Logic, JBoss, Tomcat, Apache, Passenger, Nginx |
| **Build Scripting Tools** | Ant, Maven Artifactory |
| **CI/ Other Tools** | Jenkins, Team City, Bamboo, Hudson, TFS |
| **Infrastructure Tools** | VMware, KVM, Puppet Enterprise, Foreman, Apache Lib cloud, Google Cloud, AWS, Ansible |
| **Database** | MySQL, Oracle, MongoDB, SQL SERVER, Cassandra, Postgres SQL |
| **Operating Systems** | Linux (Centos/ Red Hat), Windows Family, Mac |

**PROFESSIONAL EXPERIENCE**

**Associated Bank, St Paul, MN**   **Aug 2021 – Present**

**AWS Solutions Architect & DevOps Engineer**

**Responsibilities:**

* Gathered all the stakeholder approvals, and necessary signoffs while acting as a release manager for two development teams.
* Worked in an environment of Amazon Web Services (AWS) products and gained good knowledge in **Elastic Cloud Computing, Simple Storage Services, Glacier, Block Storage, Elastic Beanstalk, Amazon Lambda, Virtual Private Cloud, Load balancing, Relational Database Service, and Cloud Watch.**
* Worked on **AWS CLI tools, EC2, and Cloud formation** to set up a DEV and Testing Environment in **Amazon Cloud**.
* Extensively Worked on automated configuration management and deployments using **Ansible** playbooks and **Yaml** for resource declaration. And creating roles and updating Playbooks to provision servers by using **Ansible**.
* Design highly available, cost-effective, andfault-tolerant systems using multiple **EC2 instances, Auto Scaling, Elastic Load Balance, and AMIs.**
* Implemented **Jenkins** as a Continuous Integration Server for Installation, Configuration, Design and Administration, and integrating tools with other systems
* Managed different infrastructure resources, like **physical machines, VMs,** and **Docker containers** using **Terraform**
* Implemented rapid-provisioning and life-cycle management for **Linux** using **Amazon EC2, Ansible, and custom Ruby /Bash scripts**
* Worked on Manage deployments and rollbacks of applications with **Kubernetes orchestration**
* Worked on creating the **Docker containers**, **Docker** container images, tagging and pushing the images, and **Docker** consoles for managing the application life cycle.
* Deploy **Docker** Engines in Virtualized Platforms for containerization of multiple applications.
* Implemented a Continuous Delivery pipeline with **Docker, Jenkins, and Git**. Whenever a new Git branch gets started, **Jenkins** automatically builds a new **Docker container.**
* Developed and maintained the continuous integration and deployment systems using **Jenkins, ANT, Maven, Nexus, Ansible, and Ruby.**
* Worked on Installing, Configuring, and managing in **Ansible** Centralized Server and creating the playbooks to support various middleware application servers, and involved in configuring the **Ansible** tower as a configuration management tool to automate repetitive tasks
* Extensively worked on Automating the Build Infrastructure for deploying services in a Docker environment using **Jenkins, SonarQube, Gradle, Groovy, Job DSL, Docker, and Splunk.**
* Designed, investigated, and implemented public-facing websites on **Amazon Web Services** (**AWS**) using Jenkins Amazon Web Services **(AWS)** Code Deploy plugin to deploy to **AWS**.
* Developed an internal **Docker** environment for test projects as well as projects with a limited lifespan
* Created cloud formation scripts for hosting software on **AWS cloud.**
* Worked on **Ansible Tower**, which provides an easy-to-use dashboard and role-based access control, so that it's easier to allow individual teams access to **Ansible** for their deployments.
* Worked on writing the scripts in **Perl** and **Shell Scripts** for managing various enterprise applications.
* Worked on Installing **Ansible Tower** and using it to manage systems
* Developed a continuous deployment pipeline using **Jenkins**, and **Ruby/shell scripts.**
* Installed and managed **Artifactory** for universal repository management.
* Responsible for gradation of **SonarQube** using upgrade Center, Viewing the selected issues of the web interface using **SonarQube**.
* Installed and Configured the **Apache, Nginx, Tomcat web, and application** servers for Dev and Integration Test Environments.
* Worked on **Kibana** and **Elastic search** to identify the **Kafka** message failure scenarios. Implemented reprocessing of failure messages in **Kafka** using offset ID.
* Worked on build tasks using **Maven, Ant, Gradle, and GNU Make files** and worked with the development team to migrate **Ant scripts to Maven.**
* Worked on **Apache** and Firewalls in both development and production.
* Developed and supported the **RHEL-based** infrastructure in the cloud environment.
* Worked on integrating **GIT** into the Continuous Integration **(CI)** environment along with **Anthill-Pro.**
* Developed scripts for build, deployment, maintenance, and related tasks using **Jenkins, Docker, Python,** and **Bash.**
* Migrated the current **Linux** environment to **AWS/RHEL** Linux environment used auto scaling feature and was Involved in Remediation and patching of Unix/Linux Servers.
* Used and worked on multiple Bug tracking tools like **JIRA, Remedy,** and **Bugzilla**.
* Educated the Development teams on **Jenkins, GIT, AWS, and the whole CICD Pipeline process.**
* Created and maintained CI/CD environments in **Scrum** and **Agile** projects.

**Environment:** AWS (EC2, S3, RDS, EBS, Elastic Load Balancer, Auto scaling, EC2 instances, VPC, subnets, NAT, Security Groups, VMware, Jenkins, Docker, Docker containers, Kubernetes, Terraform, Ansible, Python Scripts, GIT, Team City, JIRA, MySQL database, Nginx, NetApp, Red Hat Linux Servers

**Minnesota Rubber & Plastics/****Quadion, LLC, Minneapolis, MN**  **Sep 2019 – Jul 2021**

**AWS Solutions Architect & DevOps Engineer**

**Responsibilities:**

* As a **DevOps Engineer,** I am responsible for designing, building, monitoring, and enhancing services and production environment.
* Developed and implemented an **Agile SDLC** and refinement of the **Software Configuration Management (SCM) infrastructure.**
* Involved in designing and deploying a multitude of applications utilizing almost all the **AWS stack** (Including EC2, Route53, S3, RDS, Dynamo DB, SNS, SQS, and IAM) focusing on high-availability, fault tolerance, and auto-scaling.
* Used Ansible and **Ansible Tower** as a configuration management tool, to automate repetitive tasks, quickly deploy critical applications, and proactively manage changes.
* Created **Ansible Playbooks** for various environments for release and rewritten puppet modules into the Ansible Playbooks.
* Installed and configured **Ansible.** Created different Playbooks. And managed **Ansible inventories.**
* Responsible for building infrastructure for new cloud-native applications in **AWS.**
* Configured **IAM roles** for **EC2 instances** and assigned them policies granting specific level access to **S3 buckets**.
* Designed and developed the framework to consume the web services hosted in **Amazon EC2 instances.**
* Designed Stacks using **Amazon Cloud Formation** templates to launch AWS Infrastructure and resources.
* Installed and arranged databases like **MongoDB and DynamoDB.**
* Wrote **Ansible Playbooks** with Python SSH as the Wrapper to Manage Configurations of AWS nodes and Tested Playbooks on AWS instances using Python.
* Worked extensively with **AWS services** like EC2, S3, VPC, ELB, Autoscaling Groups, Route 53, IAM, CloudTrail, CloudWatch, CloudFormation, CloudFront, SNS, and RDS.
* Worked on **AWS Elastic Beanstalk** for fast deploying of various applications developed with **Java, PHP, Node.js, Python, Ruby, and Docker** on familiar servers such as Apache and IIS.
* Configured **AWS CLI** and performed necessary actions on the **AWS services** using **shell scripting.**
* Used **Jenkins pipelines** to drive all **microservices** builds out to the Docker registry and then deployed to **Kubernetes**, Created Pods, and managed using **Kubernetes**
* Developed REST APIs in **Python**, providing backend capabilities to interface with OpenStack and other downstream APIs
* Worked in all areas of Jenkins setting up CI for new branches, build automation, plugin management securing **Jenkins**, and setting up master/slave configurations.
* Created, Configured, and Administered **Jenkins servers w**ith Master-slave configurations as needed.
* Integrated Defect tracking tool **JIRA**with Confluence and Jenkins CI server for identifying, logging, tracking, and documenting defects/issues in real-time.
* Involved in the development of a test environment on Docker containers and configuring the Docker containers using **Kubernetes.**
* Used Ansible to document all infrastructure into version control and used Ansible tower to deploy the projects into different environments through Octopus deploy.
* Orchestrated **CI/CD processes** by responding to Git triggers, human input, and dependency chains.
* Wrote Shell & Perl scripting defined through tasks using YAML format and Run **Ansible** Scripts depending on provision to Dev servers.
* Installed and Implemented Ansible configuration management system. Used **Ansible** to manage Web applications, Environments, configuration Files, Users, Mount points, and Packages
* Integrated Ansible tower with Octopus deploy to deploy code to different servers and set up **Ansible tower** as configuration management and deployment solution for Security Sensors.
* Installed and configured TeamCity on Linux Machines alongside updating pluggings like **JDK, Maven, Git**, and **SonarQube.**
* Used integrated development environments **Visual Studio**.
* Developed and implemented Software Release Management strategies for various applications according to the agile process.

**Environment:** AWS, Linux, GitHub, Open API/Swagger, Terraform, Ansible, Jenkins, TeamCity, Octopus Deploy, Unix/Linux, Windows, Docker and Kubernetes, Oracle, Windows

**American National Bank, St Paul, MN**  **Dec 2017 – Sep 2019**

**AWS Solutions Architect & DevOps Engineer**

**Responsibilities:**

* Worked with **Ansible playbooks** for virtual and physical instance provisioning, configuration management, patching, and software deployment.
* Implemented **AWS solutions** using EC2, S3, RDS, EBS, Elastic Load Balancer, and Auto scaling groups.
* Maintained Ansible playbooks using **Ansible roles, and Ansible Galaxy**, utilized a combination of the different modules in the Ansible playbook with YAML scripting to configure the files on remote servers.
* Used **Ansible** to manage systems configuration to facilitate interoperability between existing infrastructure and new infrastructure in alternate physical data centers
* Used **Ansible** to manage Web Applications, Config Files, Data Base, Commands, user mount Points, and Packages Used ansible-galaxy to create roles that can be reused multiple times across the organizations and calling these reusable roles using the 'requiremnent.yml' file in roles.
* Deployed and monitored scalable infrastructure on **Amazon web services (AWS)**
* Automated identification of application server and database server using **Ansible Scripts.**
* Worked with container systems like **Docker** and **container orchestration** like **Kubernetes.**
* Used **Kubernetes** to orchestrate the deployment, scaling, and management of **Docker Containers.**
* Used **Jenkins pipelines** to drive all microservices builds out to the Docker registry and then deployed to Kubernetes, Created Pods, and managed using **Kubernetes.**
* Involved in troubleshooting of various **AWS EC2 instances**. Used DNS management in **Route53,** and **Amazon S3** to backup database instances to save **snapshots** of data.
* Involved in the development of a test environment on Docker containers and configuring the Docker containers using Kubernetes.
* Migrated all servers from On-Premises to **Kubernetes** containers & wrote the scripts in **Python, Perl,** and **Shell Scripts** to monitor installed enterprise applications.
* Developed **microservice** onboarding tools leveraging **Python** and **Jenkins** allowing for easy creation and maintenance of build jobs and Kubernetes deploys and services.
* Managed **GIT repository**, code merging, and production deployments. Analyzed and resolved conflicts related to the merging of source code for **Git.**
* Created Build Jobs and Deployments in **Jenkins** and Implemented a **CD pipeline** with **Docker, Jenkins, GitHub, Ansible,** and **AWS AMI.**
* Refactored monolithic applications to Microservices and Component-based architectures.
* Worked on deployment automation of all the microservices to pull images from the private docker registry using **Ansible.**

**Environment: J**enkins, Artifactory, Docker, Kubernetes, Ansible, Legacy Services, SonarQube, Nagios, Containers, Micro Services, HTML, Bash, Ruby and Python, Oracle, Windows

**Travelers, St Paul, MN**  **Feb 2016 – Nov 2017**

**DevOps Engineer**

**Responsibilities:**

* Worked Configured **AWS IAM** and Security Group in Public and Private Subnets in Virtual Private Cloud.
* Created **AWS Route53** to route traffic between different regions.
* Built out server automation with Continuous Integration-Continuous Deployment tools like **Jenkins/Maven** for deployment and build management system.
* Administered Puppet Enterprise to provision multi-platform virtual machine configurations across infrastructure. The infrastructure consists of multiple-platform environment servers dedicated for building, deploying as well as for development, testing, and production systems.
* Participating in configuring and monitoring distributed and multiple platform servers using **Puppet**. Used **Puppet** server and workstation to manage and configure agents.
* Managed virtual instances and disks using **Puppet.**
* Wrote, maintained, reviewed, and documented modules, manifests, Hiera configurations, and **Git** repositories for **Puppet** Enterprise on RHEL and Windows platforms.
* Created a custom **Puppet** module skeleton to use the same structure across all **Puppet modules.**
* Implemented **Puppet** **Hiera** to separate data from Puppet code.
* Designed continuous delivery tools/ configuration management tools like **Puppet.**
* Installed, configured, and managed **Puppet Master** and Agent.
* Develop and enhance the automated configuration management system.
* Installed and configured configuration tools such as workstations and nodes via CLI tools to **AWS nodes.**
* Automated cloud deployments using Puppet, python (boto& fabric), and **AWS Cloud Formation Templates.**
* Designed a Configuration Management solution using **Puppet.**
* Leveraged **AWS cloud services** such as EC2, auto-scaling, and VPC to build secure, highly scalable, and flexible systems that handle expected and unexpected load bursts.
* Designed **AWS Cloud Formation templates** to create custom sized VPC, subnets, and NAT to ensure successful deployment of Web applications and database templates.
* Implemented automated local user provisioning instances created in the **AWS cloud.**
* Designed and implemented scalable, secure cloud architecture based on **Amazon Web Services.**
* Managed version control tool **GIT**to version code changes to help developers/programmers branch/merge/ revert code.
* Handled admin tasks in **Linux OS** such as server restart, application installation, and setting up monitor dashboards.
* Worked on user Group creation, monitoring, and maintaining a log for system status/health using Linux commands and Nagios system monitor.
* Worked on installation of **Docker** using toolbox & creation of custom Docker container images, tagging and pushing the images.
* Worked on creating the **Docker containers** and **Docker consoles** for managing the application life cycle.
* Performed Deployment Releases to various **QA & UAT** environments, ensuring processes are deployed successfully to production.

**Environment:** Puppet, Docker, JIRA, TFS, Team City, Kubernetes, AWS, Maven, Docker, GIT, Python, Remedy, Shell Scripting, GIT, UNIX, Linux

**Minnetronix Medical Inc., St Paul, MN**  **Jun 2014 – Jan 2016**

**DevOps Engineer**

**Responsibilities:**

* Responsible for gathering all the Stakeholder approvals, and necessary signoffs while acting as **DevOps** **engineer** for development teams.
* Responsible for **CI/CD** process implementation using Jenkins along with **Python** and **Shell scripts** to automate routine jobs.
* Implemented **AWS** solutions using **EC2, S3, RDS, EBS, Elastic Load Balancer,** Auto scaling groups, Optimized volumes and **EC2** instances.
* Implemented new project builds framework using **Jenkins & maven** as build framework tools.
* Worked on **Jenkins Continuous Integration Tools (**Installed, Configured, and Administered).
* Performed various activities on the version control tool **GIT** like **Branching, Tagging,** and **Release**.
* Automated and deployed development environments using **Ansible** to various cloud providers **Amazon AWS and EC2, and Jenkins** testing.
* Deployed Builds for various Environments like **QA, Integration, UAT** and Productions Environments
* Used load-balancing tool **Nginx** coupled with **Docker** to achieve continuous delivery goals on high scalable environment.
* Worked on Atlassian Jira, both hosted and local instances for issue tracking, workflow collaboration, and tool-chain automation.
* Troubleshooted and resolved Build failures due to infrastructure issues reduced by 98% stabilizing the build process. Set up and executed process to code review system effectively.

**Environment:** Java, Jenkins, Maven, Nagios, SQL, AWS, Nagios, WebSphere, Python, Docker, Git, JIRA, XML, Linux