

Arvada, CO

Skill Summary

- Software Engineer with expertise in cloud native engineering, container orchestration, serverless development, microservices, devops, cicd, automation, process improvement and technical team leadership
- AWS Certified Solutions Architect - Professional
- AWS Serverless event driven application development
- AWS Automation with Terraform, Cloud Formation and Python
- Expertise in C#, Node.js, React and Python development
- Expert in automation to include infrastructure as code and CICD
- Extensive expertise in implementing best practice agile development methodologies
- Successful in implementing greenfield container orchestration, microservices, cloud native solutions
- Successful in implementing repeatable, cost effective solutions that immediately increase the efficiency of the project team and help to ensure the release of high-quality software

Key Expertise

DevOps Architecture	Serverless	CICD	Team Leadership	Kubernetes(K8s)
AWS Lambda	Docker	AWS	Solutions Architect	

Technical and Management Skills

- 20 years Software Development Experience
- 5 years Management Experience
- **Programming Languages/Frameworks:** C#, .Net Core, SQL, C++, Java, Shell, Python, Node.js, React
- **Cloud Technologies:** AWS, Python Boto2-3, Terraform, Cloud Formation, Serverless Framework
- **Containerization:** Docker, Kubernetes (K8s)
- **Operating Systems:** Linux (Ubuntu, RedHat, Debian, Amazon) Windows (up to Windows 10) Mac
- **CICD Tools:** Jenkins, Team City, GitHub, BitBucket, Git, GitLab/GitLab CI, AWS Code Build/Code Pipeline
- **Configuration Management:** Ansible, Packer, Fabric
- **Database Platforms:** Oracle 8i-11g, MS SQL Server, MySQL, PostgreSQL, Cassandra, DynamoDB, AWS RDS (Aurora Postgres/MySQL)

Project Experience

Independent Consultant, Efficient IT LLC /AWS Solutions Architect/DevOps Architect

Client: Novus Professional Solutions

Project: Design and Implement a secure VDI solution meeting rigorous security requirements allowing for secure, monitored remote work.

Solutions Architecture

- Analyzed security requirements and recommended technical solutions meeting each requirement
- Provided Cost Estimates for AWS Services based on security and budget requirements

- Designed an AWS Infrastructure that met both client security requirements and the recommend Amazon Workspace security requirements
- Designed and Implemented a secure DaaS solution leveraging Amazon Workspaces
- Provided training and guidance to client Development and Support staff.

Infrastructure as Code

- Developed Cloud Formation templates implementing a secure AWS Infrastructure to include VPC, Subnets, Routing Tables, NACLs, Security Groups, Nat Gateway, required EC2 Instances, S3 Buckets, IAM Roles and Active Directory.

DevOps/Cloud Engineering

- Developed Ansible playbooks to manage Amazon Linux Workspace Images
- Leveraging Ansible, implemented OSSEC/Wazuh Host Based Intrusion Detection Server and Agents for monitoring Amazon Workspaces and integrating with an ELK stack.
- Implemented alert-based monitoring for Virus, Malware and Intrusion leveraging AWS S3 and SNS

Serverless/Event Driven Security

- Developed Lambda functions, driven by Cloud Watch events that configured Security Groups to meet corporate security standards
- Developed Lambda functions to configure Amazon Workspace Inbound/Outbound rules allowing monitoring software to have appropriate access.

React/Python Development

- Developed an AWS Amplify React Application allowing employees to perform a daily health check
- Developed an AWS Lambda function, in Python, for daily email reminders and summary reports
- Implemented the application as an S3 static hosted site, hosted on Route53 behind a Cloud Front distribution. This approach simplified hosting and reduced costs while allowing for TLS
- Leveraged AWS Cognito, Cloud Front S3, SES, Cloud Watch, Lambda and Route53

DevOps Architect Consultant/AWS Solutions Architect, Soma Logic 10/2018-3/2019

Infrastructure as Code

- Developed Terraform modules for several AWS assets to include EKS, ElastiCache, Redis, Aurora, DynamoDB, S3, Route 53, Subnets, ALB, Security Groups, Route Tables, VPC Endpoints, Internet Gateway and Nat Gateway
- Implemented full environments (test and dev) via Terraform leveraging developed modules and using S3 remote state allowing for team management of resources
- Implemented and Managed EKS Nodes via Cloud Formation

Serverless

- Developed and implemented secure AWS Lambda serverless functions in Python and Node.js
- Leveraging AWS APIs, IAM and Node.js, developed an event driven Lambda function triggered on put object to S3 that converted a html file to a PDF file for customer delivery
- Leveraging Python and boto3, developed a secure VPC enabled Lambda function allowing for KMS decryption of Vault unseal tokens and unsealing of a target Vault implementation
- Developed and implemented a Python boto3/AWS Cognito Lambda function Login service
- Managed Serverless functions with the Serverless Framework allowing for cloud provider flexibility
- Provided training and guidance on effective Serverless implementation

DevOps and Cloud Engineering

- Implemented Cloud Watch events to keep Lambda functions warm ensuring quick response time
- Configured Nginx servers with 301 http to https redirects
- Configuration management with Ansible, Terraform, Python and Cloud Formation
- Leveraging Cloud Watch Agent, implemented memory based Autoscaling on EKS Node resources via Cloud Formation
- Implemented resource tagging strategy to manage resources via tag-based AWS Resource Groups
- Implemented AWS Config for continuous monitoring of resources (SNS Subscription based)

- Leveraging AWS Trusted Advisor, monitored resource security to ensure security compliance

Solutions Architecture

- Recommended secrets mgmt via AWS Secrets Manager, KMS and Systems Manager Parameters
- Recommended extending spring cloud config manager to include AWS Secrets Manager
- Recommended TLS microservice communication be enforced via Itsio
- Designed and implemented serverless approach for customer specific html to pdf conversion
- Implemented IAM Role/Group security for AWS assets and K8s
- Developed and implemented a K8s Namespace approach allowing for isolated development

Kubernetes

- Implemented and Managed K8s via EKS
- Implemented and managed EKS Nodes via Cloud Formation
- Implemented role-based security for AWS and K8s
- Developed utilities for managing deployments, services, pods and other assets
- Managed multiple microservices environments and namespaces across multiple EKS clusters.
- Provided guidance to dev, test and devops teams on effective K8s management

Python

- Developed AWS Automation libraries leveraging boto2-3
- Developed AWS asset automation scripts for various AWS assets
- Developed automation to generate Terraform based only on AWS resource tags
- Developed database management scripts for environment automation

Independent Consultant, Efficient IT LLC /AWS Solutions Architect/DevOps Architect

Drupal, Docker, Rancher/K8s and GitLab CICD Solution Migration to AWS Infrastructure

Client: A&D ENGINEERING

- Identified and updated internal and external dependencies (Drupal Modules, Compose, Docker, and Infrastructure) to allow for complete decoupling from existing host architecture
- Configured and migrated GitLabs repositories and docker registries
- Configured GitLab Runner with docker executor and custom build container within AWS
- Developed CloudFormation templates for AWS environment management
- Developed Ansible playbooks to manage GitLab GitRunner and additional infrastructure
- Provided AWS services cost estimates for a Rancher/K8s GitLab environment to include multiple options based on budget, HA and security requirements
- Leveraging AWS CloudFormation and Ansible delivered a Rancher solution within AWS
- Provided architectural recommendations for migration of existing infrastructure to AWS
- Provided infrastructure architecture, build flow and development documentation and guidance to management and development teams on a complex system inherited from a previous vendor

AWS Solutions Architect/DevOps Architect Consultant, Cable Labs/Kyrio 10/2016 - 08/2017

- Facilitated tool and infrastructure selection resulting in the selection of K8s, AWS and GitLabs
- Provided training and guidance on K8s, AWS, Jenkins, GitLabs, Docker and .Net Core 2.0
- Implemented a Microservices CICD solution in AWS using Jenkins, GitLabs, Docker, Ansible and K8s
- Implemented a load balanced, highly available, fault tolerant, auto scaling K8s solution in AWS
- Implemented CICD allowing for continuous deploy to multiple client K8s/AWS environments
- Leveraging Ansible and Packer implemented automated environment spin up and or recovery in minutes
- Developed Ansible playbooks to manage development and build servers
- Managed AWS assets to include VPC, Subnets, Route Tables, Security Groups, EC2 and Route 53
- Developed and maintained Dockerfiles for Debian .Net Core microservices
- Developed microservice onboarding tools leveraging Python and Jenkins
- Performed administration on AWS Assets, Jenkins, GitLabs and K8s

- Provided guidance on effective microservice architectures
- Provided continuous support for system upgrades and team training

DevOps Consultant, Charter Communications 03/2015 – 02/2016

- Implemented a Docker delivery pipeline allowing for CICD of tomcat web service containers
- Managed Jira Agile Scrum/Kanban boards and developed queries for project management teams
- Implemented AWS asset management to control AWS costs
- Managed a PAAS system leveraging Jenkins, Nexus, Ansible, Packer and AWS
- Implemented Netflix OSS components Zuul and Ribbon client in support of a CI environment
- Configuration management leveraging Ansible and Packer
- Developed Python class libraries for AWS Automation leveraging Python boto2
- Managed Jenkins in a multiple VPC AWS environment
- Automated the configuration of AWS assets such as ASGs, ELBs, AMI's, and EC2 Instances
- Performed administration on AWS Assets, Jenkins, Stash, Nexus (CICD Environment)

Summary of Previous Employment (1993 – 2015)

CICD Engineer, Digital Globe, Westminster, CO
CICD Consultant, Calence, Boulder, CO
Automation Architect, Compri Consulting/Jeppeson, Denver, CO
Automation Architect, Tek Systems/GHX, Louisville, CO
Automation Architect Consultant, Prototest/GBRX, Boulder, CO
Automation Architect/Jira Admin, Midcom Consulting/BF Goodrich, Vergennes, VT
QA Manager, Prototest/Digital Folio, Denver, CO
QA Manager, Planet Group Inc, Denver, CO
Automation Architect, RHT/Kroll FD, Loveland, CO
Automation Engineer, Sapphire Tech/Digital Globe, Longmont, CO
Automation Engineer Lead and Process Consultant, Anteo Group/ADP, Fort Collins, CO
Automation Engineer Team Lead, Vega Consulting/NYS Dept of Labor, Albany, NY
Lead Engineer, Linium Consulting/NYS Dept of Health, Albany, NY
Automation Engineer, Experian, Albany NY
QA Automation Lead Consultant, Keene Consulting/ NYS DTF, Albany NY
Tech Lead, Solutions Point/Sprint PCS, Overland Park KS
Oracle Developer CSC/DOD, Kansas City, MO
E-5 Platoon Sergeant/Team Manager, USMC

Education

Bachelor of Science: **Management Computer Information Systems Park University, Parkville, Mo.**

Certifications

AWS Certified Solutions Architect – Professional
AWS Certified Solutions Architect – Associate
AWS Certified Developer – Associate
AWS Certified SysOps Administrator – Associate