

# Robert Teah

AWS Engineer

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## Professional Summary

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Hands-on professional with a strong understanding of AWS looking for AWS Cloud Engineering roles. Skilled in working under pressure and adapting to new situations and challenges to best enhance the organizational brand. Expert level experience of Amazon EC2, S3, RDS, Elastic IPs, EBS, Security Groups, Dynamo DB, Cloud Formation, Terraform, Git, Ansible, Route 53, VPC, Elastic Cache, Elastic Load Balancing, SQS, and other services in the AWS cloud infrastructure. Open to remote, in-person positions.

## Education & Certifications

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- Udacity Nanodegree, AWS Cloud Architect - Lead your organization's cloud computing strategy as an AWS Cloud Architect. Plan, design, and build secure, high availability cloud infrastructure.  
Job-Related Coursework: **Design for Availability, Reliability, and Resiliency, Design for Performance and Scalability & Design for Security**
- Udacity Nanodegree, Cloud DevOps Engineer - Operationalized infrastructure at scale and deliver applications and services at high velocity.  
Job-Related Coursework: **Cloud Foundations, Deploy Infrastructure as Code (IAC), Build CI/CD Pipelines, Monitoring & Logging & Microservices at Scale using Kubernetes**
- Udacity Nanodegree, Full Stack Web Developer - Create server-side, data-driven web applications that support any front-end and can scale to support hundreds of thousands of users.  
Job-Related Coursework: **SQL and Data Modeling for the Web, API Development and Documentation, Identity Access Management, Server Deployment and Containerization**
- AWS Certified Solutions Architect – VALIDATION NUMBER: JSPRREZ20E4QQM3B

## Work Experience

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### AWS DevOps Engineer, Luxottica. Atlanta, GA Oct 2021 – Present

- Deploy Serverless Architecture using DynamoDB and Lambda
- I have implemented CICD using Jenkins, Git and Docker
- Implemented AWS Lambda functions for serverless compute, reducing infrastructure costs by 30% and improving application scalability.
- Configured and managed Amazon RDS instances to support high-availability, multi-zone deployments for critical databases, achieving 99.99% uptime.
- Designed and established secure VPC peering connections between AWS regions, enabling seamless data transfer and enhancing application performance.
- Utilized AWS CloudWatch and Prometheus to monitor and troubleshoot cloud infrastructure and application performance, ensuring 99.9% uptime for critical services.
- Set up Grafana dashboards to visualize system metrics and application performance, enabling proactive monitoring and faster issue resolution.
- Developed IAM roles and policies for fine-grained access control, ensuring least privilege principles and enhancing overall cloud security posture.

### **Site Reliability Engineer, Home Depot, Inc. Atlanta, GA July 2019 – 2021**

- Spearheaded site reliability efforts on AWS, ensuring the availability, performance, and resilience of critical services by defining and tracking Service Level Objectives (SLOs) and Service Level Indicators (SLIs).
- Collaborated with development and operations teams to establish comprehensive SLIs, such as response times, error rates, and throughput, to accurately measure system performance and user experience.
- Implemented proactive monitoring and alerting using AWS CloudWatch and custom monitoring tools, enabling real-time visibility into SLIs and facilitating rapid incident response and troubleshooting.
- Defined SLOs for key services, setting ambitious yet achievable targets for uptime and performance, aligned with business needs and customer expectations.
- Conducted regular reviews of SLI data, analyzing trends and identifying areas for improvement to enhance the overall reliability of AWS-hosted applications and services.
- Utilized AWS Auto Scaling and Load Balancing to dynamically adjust resources based on SLI thresholds, ensuring optimal performance even during peak traffic periods.
- Led post-incident reviews to understand root causes of reliability incidents, implementing corrective actions and preventive measures to prevent future occurrences and improve Mean Time to Recovery (MTTR).
- Collaborated with the development team to conduct Chaos Engineering exercises, simulating failure scenarios and measuring the impact on SLIs to identify potential vulnerabilities and weaknesses.

### **AWS Cloud Engineer, FutureMedia, Inc. Atlanta, GA June 2013 – 2019**

- Supported development teams with guidance on best practices for building and deploying applications on the AWS platform.
- Optimized application performance by integrating Amazon RDS databases into cloud architecture designs.
- Conducted thorough assessments of existing infrastructure to identify areas for improvement and implement appropriate cloud-based solutions using AWS services.
- Participated in on-call rotations to provide prompt support and address critical incidents involving AWS infrastructure, ensuring minimal downtime and rapid resolution of issues.
- Streamlined deployment processes through the utilization of AWS CloudFormation templates for infrastructure automation.
- Implemented monitoring solutions using Amazon CloudWatch and other related tools for real-time insights into system performance, usage patterns, and potential issues.
- Spearheaded efforts in cloud cost management by implementing budget monitoring, resource tagging, and cost allocation strategies across AWS services.
- Collaborated closely with stakeholders during planning phases to ensure alignment between business objectives and technical requirements before initiating migrations or deployments in the cloud.

## **Hands-on Projects**

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- **AWS Serverless event-driven architecture**
  - Designed and built an event-driven system with EventBridge, SQS, SNS, Step Function, Lambda.
- **Microservice on AWS**

- Created microservice using API Gateway, Lambda, DynamoDB.

## **I Kubernetes on AWS**

- Created container, deployed on Amazon EKS, and exposed using ALB.

## **I AWS services in compute, storage, networking, observability, security**

- Hands-on knowledge of VPC, EC2, Lambda, EKS, Fargate, CloudWatch, IAM, RDS, DynamoDB, S3, and others.

## **I Recoverability in AWS**

- In this project, I build a multi-availability zone, multi-region database. I demonstrate how applications can use this distributed infrastructure and migrate your primary database from one geographical region to another. I also create a versioned website and demonstrate how it is protected from accidental or malicious disruption, with an ability to turn-back-the-clock when something disrupts your normal operations.

## **I Design, Provision, and Monitor AWS Infrastructure at Scale**

- In this project, I plan, design, provision, and monitor infrastructure in AWS using industry-standard and open-source tools. I practice the skills I learned throughout the course to optimize infrastructure for cost and performance. I also use Terraform to provision and configure AWS services in a global configuration.

## **I Securing the Recipe Vault Application**

- My role in this project was to secure the Recipe Vault. In this project, you will deploy and assess a simple web application environment's security posture. You'll have a chance to test the security of the environment by simulating an attack scenario and exploiting cloud configuration vulnerabilities. You'll also set up monitoring to identify suspicious behavior and vulnerable configurations and you will remediate the identified misconfigurations. Finally, you will tie it all together by proposing a DevOps build pipeline that includes security best practices.

## **I Deploy a Static Website on AWS**

- The cloud is perfect for hosting static websites that only include HTML, CSS, and JavaScript files that require no server-side processing. In this project, you will deploy a static website to AWS. First, you will create a S3 bucket, configure the bucket for website hosting, and secure it using IAM policies. Next, you will upload the website files to your bucket and speed up content delivery using AWS's content distribution network service, CloudFront. Lastly, you will access your website in a browser using the unique S3 endpoint.

## **I Deploy a High-Availability Web App Using CloudFormation**

- In this project, you'll deploy web servers for a highly available web app using CloudFormation. You will write the code that creates and deploys the infrastructure and application for Instagram-like apps from the ground up. You will begin with deploying the networking components followed by servers, security roles and software. The procedure you follow here will become part of your portfolio of cloud projects. You'll do it exactly as it's done on the job: following best practices and scripting as much as possible.

## I Build an automated CI/CD Pipeline for UdaPeople

- In this project, you'll demonstrate your Cloud DevOps engineer skills as a new employee at UdaPeople, an innovative new Human Resources company that depends on quick release cycles and a rock solid, high-quality product. You will help the development team deliver value continuously by building an automated CI/CD pipeline. Those new skills will also be put to the test as you set up automated monitoring and alerting to ensure the delivered value stays valuable. Thanks to your new skills and hard work, UdaPeople will have a massive competitive advantage in the PeopleOps marketplace and will surely go on to change the world!

## I Operationalized a Machine Learning Microservice API

- In this project, you will continue your work on operationalizing microservices by deploying an elastic and fault-tolerant Machine Learning inference API using Kubernetes. You'll configure this microservice to be highly available by using Kubernetes best practices. You will validate your design by load testing the service and verifying the application architecture performs as designed.

## I CI/CD Pipeline for a Microservices Application

- I build a CI/CD pipeline for a microservices application for different deployment strategies. I define the scope of the project and select the right deployment strategy based on different business requirements.

## Technology Skillset

AWS, Serverless, DevOps, Jenkins, Kubernetes, Linux, ServiceNow, SQL, Python, System Design, CI/CD: Automation: Terraform, Ansible, Version Control: GIT, GitHub, Scripting: Shell Bash, Database Systems: RDS, Containerization: Docker, Performance Management, Build releases. **FSWD - SQL and Data Modeling for the Web:** SQLAlchemy • Flask • Object-relational mapping • Relational database transactions • Parsing form data • PostgreSQL • Relational database migration • Psycpg2 • Model-view-controller • Tcp/ip • Client-server model • Crud model • Alembic • Application routing. **API Development and Documentation:** Flask • HTTP • Cors • API fluency • API testing • Unittest • API development • Curl • API documentation. **Identity Access Management:** Application authentication • Application security basics • Application authorization • Git • Jwts • Auth0 • Database query sanitization • Role-based access control • Data security fundamentals • Salt • Code reviews • Postman • Data encryption • Integration testing. **Server Deployment and Containerization:** Docker • Kubernetes • Containerization fluency • Continuous deployment • AWS cli • Container orchestration • AWS codepipeline • Amazon Elastic Kubernetes Service • Continuous integration • AWS codebuild. Paramiko.

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