**Exam Readiness: AWS Certified DevOps Engineer - Professional (Resume)**

**Module 1: SDLC Automation**

**Summary:**  Software Development Lifecycle automation is important for cutting down developer time. We review the importance of CI/CD and talk about the general AWS pipeline using AWS CodeCommit, AWS CodeBuild, AWS CodeDeploy, and AWS CodePipeline. Automated testing, through various differently scoped tests, occurs throughout the project lifecycle.

**Core Technologies:** AWS CodeCommit, AWS CodeBuild, AWS CodeDeploy, and AWS CodePipeline

**Module 2: Configuration Management and Infrastructure as Code**

**Summary:** We reexamine AWS CloudFormation and its use as a configuration tool. CloudFormation gives powerful control to stack management and update templates. AWS Elastic Beanstalk is another method of infrastructure management. AWS OpsWorks supports cloud based operations.

**Core Technologies:** AWS CloudFormation, AWS Elastic Beanstalk, AWS OpsWorks, AWS Lambda, AWS API Gateway

**Module 3: Monitoring and Logging**

**Summary:** Access to performance and security data for your deployments is essential to maintain their health. AWS CloudWatch is a built-in method for acquiring these metrics. You can receive logs and even set alarms should thresholds or health deteriorates. AWS CloudTrail is a logging software that tracks the user activity in the deployment. X-Ray is used to help diagnose issues once failures are reported.

**Core Technologies:** AWS CloudWatch, AWS CloudTrail, AWS X-Ray, Amazon Kinesis

**Module 4: Policies and Standards Automation**

**Summary:** We discuss set roles and access levels with developers within AWS, including power users and administrators. GuardDuty is a service that supports checking for unauthorized entries. Systems Manager and Config provide information on the traffic within the deployment in more granular detail.

**Core Technologies:** AWS IAM, Amazon GuardDuty, AWS Systems Manager, AWS Config

**Module 5: Incident and Event Response**

**Summary:** A logging strategy that keeps your data organized is very useful for troubleshooting issues. Many of the same technologies used for security and error checking apply here as well such as CloudWatch and X-Ray. Make sure to consult manuals and guides to see if your issue has already been resolved in the past. CodeDeploy can also help with scaling your application to help handle incident resulting from load issues.

**Core Technologies:** AWS CloudWatch, AWS X-Ray, AWS CloudTrail. AWS Elastic Beanstalk, AWS OpsWorks, AWS CodeDeploy

**Module 6: High Availability, Fault Tolerance and Disaster Recovery**

**Summary:** Applications and deployments need to scale up to multiple regions which can be a real issue for certain frameworks. Similarly, when such a massive scale fails, you need to be ready for disaster recovery and use the right tools to correct the issues.

**Core Technologies:** Amazon CloudFront, Amazon DynamoDB, AWS Elastic Beanstalk