PRATYAKSH SINGH

DevOps and Cloud engineer

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SUMMARY

AWS DevOps Engineer with 2+ years of experience in automating CI/CD pipelines, managing cloud infrastructure, and implementing infrastructure as code (IaC). Proficient in AWS services like EC2, S3, Lambda, RDS, and CloudWatch to build reliable and scalable systems. Skilled in using Docker, GitHub Actions, and Gitlabs to streamline deployments and minimize manual tasks. Strong collaborator with a focus on performance, security, and operational efficiency in cloud environments.

CERTIFICATIONS

AWS Solution Architect Associate
AWS Solution Architect certificate

AWS SysOps Administrator Associate
AWS SysOps Administrator certificate

AWS Machine Learning Engineer Associate
AWS Machine Learning engineer certificate

EXPERIENCE

03/2025 - Present

AWS Cloud Engineer
Image InfoSystems

- Managed and enhanced the deployment of an in-house Cheque Truncation System (CTS) application on AWS.
- Deployed core application components on EC2 and integrated RDS for secure cheque image storage.
- Integrated CloudWatch for real-time monitoring, logging, and proactive incident alerts.
- Collaborated with development teams to streamline CI/CD pipelines for faster and more reliable deployments.
- Continuously working on identifying and automating repetitive operational tasks to improve efficiency and reduce manual effort.

06/2024 - 03/2025

AWS DevOps Engineer
Dumadu Studios

- Developed and maintained CI/CD pipelines to automate the build, testing, and deployment processes for mobile games on Android and iOS platforms, ensuring seamless delivery of new features and monitored updates.
- Optimized cloud infrastructure using AWS services such as EC2, S3, and RDS to support the backend systems for game data, in-app purchases, and ad integration, ensuring high availability , improved efficiency and scalability.
- Collaborated with game developers to containerize game backend systems using Docker, ensuring consistency across development, staging, and production environments.
- Currently leading the development of iOS games and contributed in expanding platform expertise and user reach.

12/2022 - 06/2024

AWS DevOps Engineer
Upwork

AWS Cost Report Generation

- Tech Stack: AWS Lambda, AWS Cost Explorer, Amazon SES, Python
- Built a serverless solution using AWS Lambda and Python to automate the generation and delivery of daily cost and usage reports.
- Integrated AWS Cost Explorer to retrieve detailed cost data, including service usage and spending trends.Integrated AWS Cost Explorer to retrieve detailed cost data, including service usage and spending trends.
- Configured Amazon SES to send formatted cost reports to stakeholders, ensuring clear visibility into AWS expenses.

Image Recognition using AWS Lambda Function, S3, Amazon Rekognition, and SNS

- Tech Stack: AWS Lambda, Amazon S3, Amazon Rekognition, Amazon SNS, Python
- Designed and deployed an automated image recognition pipeline using AWS Lambda and Amazon Rekognition to process and analyze images stored in S3 buckets.
- Configured Amazon Rekognition to identify objects, scenes, and faces in uploaded images, generating detailed metadata
- Utilized SNS for real-time notifications, sending alerts to stakeholders based on recognition results.

AWS Voice Automation System

- Tech Stack: Python, AWS, Dialogflow, Speech-to-Text, Text-to-Speech
- Created a Python-based AWS Voice Automation system enabling users to communicate instructions through speech, processed using Google Cloud's Speech-to-Text and interpreted via Dialogflow.
- The system coordinates AWS actions based on user intent, delivering responses in speech using Google Cloud's Text-to-Speech service, complemented by various Python libraries for enhanced capabilities

AWS Cheque Truncation System

- Tech Stack: AWS EC2 , VPC , Route53 , RDS , ELB
- Designed and implemented a cloud-based Cheque Truncation System (CTS) architecture using AWS.
- Enabled secure storage and retrieval of cheque images while ensuring data integrity and confidentiality
- Integrated CloudWatch for monitoring and alerting to ensure performance, availability, and timely issue resolution.
- Built a scalable and highly available infrastructure to support real-time cheque clearing operations.

SKILLS

DevOps   Amazon web services   AWS Aurora   AWS EC2   AWS S3   AWS VPC   AWS ASG   AWS ELB   AWS ECS

ECS Fargate   AWS ECR   AWS DynamoDB   AWS RDS   AWS Lamda   AWS SSL   AWS KMS   AWS SQS   AWS SNS

AWS CloudFormation   AWS Cloudfront   AWS CloudWatch   Route 53   AWS EFS   AWS Transfer Family   AWS WAF

AWS Shield   AWS GuradDuty   AWS Security Hub   AWS Sagemaker   AWS Kinesis Data Streams   AWS EMR

AWS MSK   AWS Glue   Docker   Terraform   IaC   Disaster Recovery techniques   Git   Github   CI/CD

Github actions   Gitlabs   YAML   Linux   DSA   OOPs   DBMS   Java   Python

PROJECTS

Three-Tier Web Application Deployment on AWS

- Designed and deployed a scalable three-tier architecture on AWS, ensuring high availability, security, and performance.
- Configured Nginx web servers on EC2 instances to serve a React.js front-end, with a public-facing ALB managing traffic distribution.
- Deployed a Node.js application in the application tier behind an internal ALB, handling API requests and business logic.
- Implemented an Amazon Aurora MySQL (Multi-AZ) database for reliable data storage and optimized performance.
- Integrated Auto Scaling Groups, health checks, SSL/TLS (ACM), and Route 53 for automated scaling, security, and seamless DNS management.

Automated Image Resizing with AWS S3, Lambda, and SNS and integartion with CI/CD

- Developed an AWS Lambda function to automatically resize images uploaded to an S3 bucket and store them in a separate bucket.
- Configured two S3 buckets for original and resized images, and integrated SNS for real-time email notifications.
- Implemented Lambda with Python and Pillow, handling image processing and environment variables for bucket names and SNS ARN.
- Automated image management by configuring IAM roles and permissions, streamlining the resizing and notification process.

WordPress Website Deployment on Lightsail

- Provisioned an AWS Lightsail instance to host the WordPress website.
- Installed WordPress on the Lightsail instance either through the Lightsail console or SSH access.
- Registered a public domain through a domain registrar or AWS Route 53.
- Associated the domain, including www, with the Lightsail instance's static IP address.
- Secured the website by setting up SSL/TLS certificates, either through Lightsail's built-in certificate management or a third-party provider.

ADTM (Automatic Drone Teller Machine) with AWS Integration

- Designed a drone featuring an integrated ATM system, leveraging Arduino technology to facilitate emergency cash delivery to remote regions.
- Upload the documentation, including manuals, schematics, and guides for the drone, to an Amazon S3 bucket .
- Integrate Amazon Rekognition to enable the drone to analyze images captured during its flights.
- Utilize Amazon DynamoDB to store telemetry data, flight logs, and other operational information generated by the drone.
- Integrate DynamoDB with AWS Lambda for real-time data processing and analysis.
- Led a team to victory in the Dexterix Hackathon at college, securing 1st place among 80 competing teams by successfully implementing our innovative idea.

EDUCATION

Greater Noida , India   **Bachelor of Technology in Computer Science**
Galgotias University

Jodhpur , Rajasthan   **XII, Higher Secondary Education**
St Paul School

Jodhpur , Rajasthan   **X, Secondary Education**
St Paul School