# Pratyay Banerjee

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**PROFESSIONAL SUMMARY**

Innovative and certified **Senior** **DevOps Engineer with more than 6 years of hands-on experience**, combining a **comprehensive** **background in the software industry spanning over 15 years**. Recognized for pioneering Infrastructure as Code (IAC) implementations using Terraform and Python and orchestrating Docker Container deployments with Kubernetes.

**WORK EXPERIENCE**

**ByteDance, Plano, TX April 2023 – Present**

**Role: Senior Cloud Engineer - AWS**

* Reduced programming time by 80% by providing unique solutions for 2 - 3 different services using API Gateway, Lambda, Python, S3, and DynamoDB.
* Developed AWS infrastructure for micro-services using IaC Terraform and Ansible and deploy using CI/CD pipeline to increase deliverable efficiency by 50% and reusability by 100%.
* Reduced monthly cost by $3000+ by designing infrastructure using ECS Fargate to facilitate rapid provisioning of reproducible development environments and ensured seamless scaling and orchestration.
* Crafted Kubernetes Pod definitions and leveraged Helm Charts for version-controlled deployment strategies for deploying and monitoring microservices on AWS EKS and Kubernetes.
* Spearheaded a rotational 24x7 on-call support program, resulting in a 45% decrease in severity 1 and 2 incidents pertaining to existing AWS infrastructure using Grafana and Datadog, ensuring uninterrupted service delivery and customer satisfaction.
* Collaborated with 5 Product Owners, 10+ Business Users, 15 Developers, 2 DBAs, and 5 cross-functional teams to deeply analyze business needs, backlogs, and epics, and architecting optimal cloud solutions.

**Capital One, Plano, TX April 2022 – April 2023**

**Role: AWS DevOps Engineer**

* Orchestrated the development of AWS infrastructure for micro-services, employing IaC Terraform and custom scripts.
* Actively managing, enhancing, and monitoring cloud infrastructure on AWS, including EC2, ELB, S3, and RDS, encompassing critical tasks such as backups, patches, and scaling.
* Spearheaded the creation of Kubernetes Pod definitions and Docker images and harnessed Helm Charts for version-controlled deployment strategies. These efforts effectively deployed and monitored microservices on AWS EKS and Kubernetes.
* Designed an efficient solution to deploy and configure Prometheus on existing Kubernetes servers and setup dashboards on Grafana.
* Pioneered a 24x7 on-call support program for severity 1 and 2 incidents related to existing AWS infrastructure. Leveraged Grafana and Datadog to ensure uninterrupted service delivery and bolster customer satisfaction.
* Collaborated extensively with a diverse team. Conducted in-depth analyses of business needs, backlogs, and epics, leading to the design of optimal cloud solutions.

**Southern California Edison (SCE), Los Angeles, CA May 2018 – March 2022**

**Role: AWS DevOps Engineer**

* Pioneered in rolling out IaC organization-wide using Terraform and custom Shell scripts ensuring 65% efficient and 100% reusable and scalable systems.
* Reduced deployment time in Dev, QA, and Prod environments by 80% by designing fully automated CI/CD pipeline using Docker, Jenkins, GitHub, and AWS services.
* Guided to build architectural solutions in AWS infrastructure using EC2, S3, IAM, Route53, DynamoDB, Auto Scaling and Load Balancers (ELBs) for 5 different project teams.
* Implemented rapid-provisioning and life-cycle management for Linux using Amazon EC2, Python Boto3, and custom Bash scripts using Serverless framework eliminating manual intervention.
* Act as a Product Owner for the DevOps team and created concise stories that accelerated project deliverables by 20%.

**State of Idaho - Department of Health and Welfare, Boise, ID August 2014 – April 2018**

**Role: Cloud DevOps Engineer - AWS**

* Introduced Jenkins CI/CD Pipeline to the organization using Maven, SonarQube, and Docker resulting in 40% faster deliverables.
* Designed infrastructure using EC2 instances, Auto Scaling, ELB, and AMIs achieving 73% cost savings by eliminating 50+ physical servers.
* Facilitated pulling images from the Docker hub, running containers based on an image, and creating Dockerfile to manage customized containers.
* Automated AWS components like EC2, S3, Security groups, ELB, RDS, IAM through AWS Cloud Formation templates.
* Set up Git repositories and SSH keys in GitHub for Agile teams and integrate GitHub Webhooks into Jenkins.
* Configured Kubernetes to orchestrate the deployment, scaling, and management of Docker Containers.

**PAST EXPERIENCES**

**Product Owner**, Kaiser Permanente, Lake Oswego, OR 07/2013 – 07/2014

**Solution Architect**, McGraw-Hill CTB, Monterey, CA 11/2012 – 06/2013

**Lead Solution Architect**, SCE, Los Angeles, CA 11/2010 – 11/2012

**Project Lead**, McAfee Inc, Portland, OR 06/2007 – 10/2010

**CERTIFICATIONS**

* **AWS Certified Solutions Architect Associate**
* **HashiCorp Certified Terraform Associate**
* **Certified Scrum Master (CSM)** from **Scrum Alliance**
* **Certified Scrum Product Owner (CSPO)** from **Scrum Alliance**
* **Project Management Professional** (**PMP**) from Project Management Institute (**PMI**)

**ACADEMIC PROFILE**

* **Post Graduate Diploma in Information Technology** **Management** (**PGDIT**) from Symbiosis Centre for Distance Learning (SCDL), Pune, India.
* **Master of Computer Application** (**MCA**) from University of Madras, Chennai, India.
* **Bachelor of Science** (**BSc**) with Physics as Major from University of Calcutta, Kolkata, India.

**TECHNICAL COMPETENCIES**

* **AWS:** EC2, S3, ELB, EBS, VPC, IAM, SQS, RDS, SNS, Lambda, CloudWatch
* **Configuration Management Tool:** SVN, Github
* **Container Technologies:** Docker, Kubernetes
* **Provisioning Tools:** Terraform, Ansible
* **CI-CD Tools:** Jenkins, CodeCommit, CodeBuild, CodeDeploy
* **Build Tools:** Maven
* **Web Server:** Apache Tomcat, Nginx
* **Languages/Scripting:** Python**,** Shell/Bash Script, Groovy, Java
* **Database:** SQL Server 2008, Oracle 11g, MySQL, DynamoDB
* **Monitoring Tools:** AWS CloudWatch, AWS CloudTrail
* **Project Management:** Project Planning, Resource Management, Test Management, Stakeholder Management, Risk Management, Training/Mentoring
* **Project Planning and Tracking Tool:** VersionOne, MS Project 2010
* **Operating System:** CentOS, Ubuntu, Windows, MacOS Catalina