# Bikash Kumar Sinha,

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## OBJECTIVE

Seeking a position where I can contribute my skills & abilities to reach higher echelons while being resourceful, innovative & flexible towards organizational growth.

## CAREER SUMMARY

- ✓ Around 12+ years of professional experience in IT Industry and on AWS having **6 years of experience** as an **AWS Lead Cloud Infra Engineer.**
- ✓ Experience in working on AWS and its services like **IAM, VPC, EC2, EKS, EBS, S3, ELB, Auto Scaling, Route 53, CloudFront, WAF, Reddis, RabbitMQ, RDS, SES, SQS and SNS** and create custom sized VPC, subnets, NAT, EC2 instances, ELB and Security groups.
- ✓ Designed highly available, cost effective and fault tolerant systems using multiple EC2 instances, Auto Scaling, Elastic Load Balancer and AMIs.
- ✓ Establishing connectivity to AWS Resources in another **VPC** in another region using AWS VPC Peering.
- ✓ Configured **S3 buckets** with various life cycle policies to archive the infrequently accessed data to Storage classes based on requirement.
- ✓ Creating alarms in **Cloud watch** service for monitoring the server performance, CPU Utilization, disk usage.
- ✓ Used Amazon RDS to create snapshot and automate backup of database
- ✓ Collaborated with cross-functional teams to design and implement AWS infrastructure solutions using **Terraform**.
- ✓ Integrated **Amazon Event Bridge** Scheduler with Lambda function for **EKS node patching**.
- ✓ Worked on data migration on **RDS** using **DMS service**.
- ✓ Implemented the Development, stage, pre-prod, and Prod environments setup based on client requirements in AWS VPC with the components like: **EC2, RDS**, **ELB, WAF, Autoscaling and S3 buckets**.
- ✓ Worked on the **Encryption** of volumes on EBS.
- ✓ Backup and restoration of EC2 & RDS using **snapshot**.
- ✓ Oracle 10g/11g/12c Oracle database and OEM Grid Control for administration, **monitoring** & **performance analysis** of Oracle products.
- ✓ Experience in Software **Installation, Database Creation, Migration, Upgradation**.
- ✓ Have good experience in implementing **encryption in Oracle Database (TDE).**
- ✓ Experience in **DR setup** and DR drill
- ✓ Experience in **Tuning Database Performance** and give consultation to client.
- ✓ Experience in **User Managed, Logical and RMAN Backup and Recovery** respectively.

**TECHNICAL EXPERTISE**

| Cloud | AWS |
|---|---|
| **Networking Protocols** | HTTP/HTTPS, FTP, NFS, SMTP. |
| **Scripting Languages** | Python, Shell scripting, YAML. |
| **Source Code Management** | GIT, Git Lab, |
| **CI/CD** | Jenkins |
| **Web and Application Servers** | Apache Tomcat 7.x, Nginx. |
| **Databases** | PostgreSQL, MSSQL, Oracle |
| **Monitoring tools** | Cloud Watch, Splunk, Prometheus, ELK |

**Achievements and Recognition**

- ✓ Successfully completed Certification for **AWS solution Architect - Professional** (Jul - 2023)
- ✓ Successfully Renewed Certification for **AWS solution Architect - Associate** (Aug - 2022)
- ✓ Successfully completed Certification for **AWS solution Architect - Associate** (Sep - 2018)
- ✓ Received 2 **On-Spot Awards** for outstanding performance and contributions in the deployment of CEMS & TFM auto infrastructure using Terraform.
- ✓ Received 2 Outstanding Performance **WOW Award** for extraordinary performance, excellent impact analysis and problem-solving skills.

**WORK EXPERIENCE**

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| **Nov 2021 – Till Date** | **TCS** | **Lead Cloud Infra Engineer** |

**Project:**        **CEMS and TFM**

**Client:**          **GE Healthcare**

**Description:**    Primary objective of CEMS (Cloud Exam Management Solution) is to allow users to upload exams to the cloud and share them with the peers or other care providers for consultation or training purpose. It also allows sharing individual images with patients. TFM (True Fleet Management) help user to organize and manage probe asset by grouping them under Fleet.

**Contribution:**   I worked on following activities:

- ✓ Used IAM for creating roles, users, groups and implemented MFA to provide additional security to AWS account and its resources.
- ✓ **Orchestrated the provisioning and management of various resources** including EC2 instances, VPCs, subnets, security groups, and IAM policies.
- ✓ **Automated infrastructure deployment**, configuration, and updates to improve efficiency and reduce manual errors.

- ✓ **Implemented Infrastructure as Code (IaC)** principles with Terraform, **ensuring consistency and reproducibility of infrastructure**.
- ✓ **Conducted regular security assessments** and implemented best practices to enhance the security posture of AWS environments.
- ✓ Worked closely with developers and other stakeholders to understand project requirements and provided technical guidance on **AWS best practices**.
- ✓ **Developed custom modules and templates in Terraform** to streamline the deployment of complex infrastructure patterns.
- ✓ **Conducted training sessions for team members** to enhance their Terraform proficiency and foster a culture of continuous learning.
- ✓ Developed and implemented a **Lambda function** with a scheduled event to stop non-production instances during non-business hours. This proactive approach ensures that resources are only running when needed, **optimizing costs associated with compute resources**.
- ✓ Integrated **Amazon Event Bridge rules** with AWS Simple Notification Service (SNS) to send alerts for stopping/terminating instances.
- ✓ Integrated **Amazon Event Bridge Scheduler** with Lambda function for EKS node patching. This ensured that the latest security updates and patches are applied consistently across the infrastructure, **reducing the risk of vulnerabilities**.
- ✓ Configured **SSM Maintenance Windows** to automate the scheduling and execution of patching activities on EC2 instances.
- ✓ Aligned SSM Maintenance Windows with **patch baselines** to define the set of patches and updates that should be applied during maintenance.
- ✓ Integrated SSM Maintenance Windows with AWS Simple Notification Service (SNS) for **real-time notifications on patching status**.

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| **Jan 2018 – Oct 2021** | **BIRLASOFT LTD** | **Team Lead** |

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|---|---|
| **Project:** | **Global Build Services** |
| **Client:** | **LafargeHolcim** |
| **Description:** | LafargeHolcim Ltd is a Swiss multinational company that manufactures building materials. |
| **Contribution:** | I worked on following activities: |

- ✓ Used IAM for creating roles, users, groups and implemented MFA to provide additional security to AWS account and its resources.
- ✓ Hands on experience in EC2 instance creation using AMI's of RHEL, SUSE Linux and Windows
- ✓ Automated stop and start Amazon EC2 instances at regular intervals using Lambda.
- ✓ Setting up **EC2 instances** and prerequisites on the instances for deploying the applications.
- ✓ Designing and deploying **AWS** solutions using EC2, S3, Elastic Load balancer (ELB), auto scaling groups.
- ✓ Provisioning of AWS instances using **Terraform** and creating modules to create infrastructure of AWS.
- ✓ Experienced in creating multiple VPC's, public, private subnets as per requirement and established connectivity to AWS Resources in another VPC in another region using **AWS VPC Peering**.
- ✓ Used security groups, network **ACL**'s, internet gateways and route tables to ensure a secure zone for organization.
- ✓ Managing the working environments through configuration management tool **Ansible**.
- ✓ Working on **Ansible Playbooks** to bring the required infrastructure changes.

**Jan 2012 – Jan 2018**            **KPIT LTD /BIRLASOFT LTD**        **Oracle DBA Associate**

**Project**            **Business Management System (BMS), Business Intelligence, Order Management , PGBU (Power Generation Business unit) & AWS Cloud Migration**

**Client:**            **Cummins Inc.  USA**

**Description:**        BI databases are Warehouse database where the data from multiple system like Order Mgmt., Business Management system and Hadoop Lake are sent to this database and these BI databases are further used for the Reporting purpose. I am also Involved in Cummins AWS Migration projects where we require to understand the existing system and migrate On-Premises database to AWS cloud.

**Contribution:**        As Oracle DBA, responsible for the following:

- ✓ Understanding the **business requirement** and understand **what business do with data**.
- ✓ Installing and upgrading the various database servers (Oracle 10g, 11g, 12c) and application tools on the provided hardware.
- ✓ Perform regular and on-demand database backups and recoveries using RMAN.
- ✓ Creation of Task estimation, project plan and Implementation
- ✓ Working on BI database on **EXADATA** machine for database size around 10 TB.
- ✓ Worked on **performance issues** on EXADATA database.
- ✓ Database cloning using EXPORT, IMPORT, DATAPUMP and RMAN duplicate.
- ✓ Maintaining and monitoring Oracle database from OEM.
- ✓ Setup **Dataguard** as per requirement.
- ✓ Troubleshoot problems regarding the databases, applications and development tools and give consultation to development teams.
- ✓ Suggested best practice to application team and business for database related activities.
- ✓ Migration of On-premises databases on the **AWS Cloud**

**Environment**        Linux5-6-7,  Solaris ,Exadata, AWS RDS

**EDUCATION**

- B.E (2011) Electronics & Communication with 72.00% from North Maharashtra University.
- HSC, 76.00%, CBSE 2007.
- SSC 73.60%, CBSE 2005.