

# Nirbhay Singh

## Cloud and AI Architect



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11 years of cloud experience and Cloud Architect with AWS and Google Professional certifications. Designs scalable, secure multi-cloud platforms across AWS, GCP, and Azure, integrating MLOps, Generative AI, and Agentic AI solutions. Expert in cloud operations, observability, migrations, FinOps, and AI deployment pipelines. Skilled in Prompt Engineering, LLM integration, and AI Ethics / Explainability / Governance to ensure responsible, compliant, and high-performing AI systems. Leads technical planning and innovation initiatives, driving cloud strategy, automation, and digital transformation with deep Python and GCP expertise.

### Experience

● Cloud Architect at  **BOSCH**

Dec 2022 - Present

- Advanced Bosch's AI transformation by integrating Prompt Engineering, LLMs, and Agentic AI into enterprise search and automation systems, leveraging Vertex AI, BigQuery, and Cloud Run for scalable deployment and continuous MLOps delivery.
- Designed and implemented LLMs and enterprise search solutions across diverse business units at Bosch Europe, driving enterprise search optimization with machine learning models now widely adopted across the region.
- Led the strategic partnership between Google, AWS, and Bosch in Poland.
- Leading and mentoring a team of senior developers and architects to design and implement cloud strategies aligned with business objectives across a globally distributed setup.
- Engaged in a wide range of technical projects involving MS Azure, Google Cloud, AWS services, Databases, AWS Redshift, BigQuery, MPPs, containerization, APIs, and SDKs.
- Implemented FinOps at Bosch Europe, resulting in savings of over €4 million.

● Senior DevOps Consultant at 

June 2021 - Nov 2022

- Utilized Infrastructure as Code (Terraform) and automated deployments for increased efficiency, consistency, and security on AWS, GCP and Azure cloud.
- Collaborate closely with team members across the company to continuously innovate Devops strategy based on their evolving needs.
- Developed various scripts in Python, Bash, YAML, and JSON to automate cloud infrastructure, resulting in a more than 50% reduction in deployment time to production.
- Experienced in deploying and managing container platforms such as GKE, EKS, AKS, and ECS.
- Designed and implement monitoring, logging, and alerting systems to proactively identify and resolve issues before they impact the business.

● Senior DevOps Engineer at 

Dec 2018 - June 2021

- AWS Optimization: Reduced costs by \$45k, 30x faster CI/CD
- Container Orchestration: 1000+ containers with AWS Batch/Spot/EKS
- Data & AI Architect: Built platforms using EMR, Redshift, SageMaker
- DevOps Leader: Implemented new tech, trained teams
- Multi-Cloud Security: Managed VPNs across GCP, AWS, Azure, OCI
- Infrastructure as Code: Utilized Puppet/Ansible for app setup

Senior Cloud Infra Engineer at



Nov 2015 - Dec 2018

- AWS Solution Architect: Designed secure, fault-tolerant, and highly available web services using EC2, RDS, S3, EBS, and VPC, adhering to best practices.
- Cloud Automation & Security: Implemented automated solutions for system security, high availability, monitoring, and scaling, ensuring an up-to-date operational environment.
- Performance Optimization: Resolved network, hardware, and performance issues to enhance AWS service availability and security. Utilized serverless tech (Lambda, Beanstalk) for efficient deployments.
- Multi-Cloud Management: Oversaw vSphere environments, Active Directory/LDAP integration, and data protection (Commvault) across cloud and on-premise setups.
- Disaster Recovery Expert: Implemented robust disaster recovery strategies for both cloud and on-premise environments, ensuring business continuity.

System Engineer at



March 2013 - July 2014

- Windows Infrastructure Architect: Managed 24+ domains, 1200+ domain controllers, 11,000+ servers
- Active Directory Expert: Implemented and administered AD across multiple Windows versions
- Automation Specialist: Streamlined operations with PowerShell scripting
- Migration Strategist: Led large-scale user and computer migrations using ADMT and Quest tools
- Incident Response Leader: Resolved critical issues (P1 & P2) with root cause analysis
- Group Policy Specialist: Conducted health checks and resolved complex GPO issues

## Skills

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• Python / Bash / Shell / YAML / JSON	• DevOps / MLOps / LLMOps / GitOps / Observability
• AWS / GCP / Azure / VMWare	• Vertex AI / Agentspace / EnterpriseSearch / RAG
• EKS / GKE / AKS / Anthos / Automotive systems	• Ansible / Jenkins / Puppet / Git
• Terraform / Cloud Formation	• Kubernetes / Docker / Cloud Migrations / IOT

## Education

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### Birla Institute of Technology

2018

- Master Of Technology (MTech)
- CGPA: 8.3

### SRM University

2016

- Master of computer Education (MCA)
- GPA: 8.1

### Kuvempu University

2012

- Bachelor of technology (BSc. IT)
- GPA: 6.3