CONTACT

📞 +91 8589898914

✉️ senghgurpreett@gmail.com

🏠 Delhi

CERTIFICATES & BADGES EARNED

- AWS Cloud Quest: Cloud Practitioner
- Oracle Service Cloud Specialist
- AWS Solution Architect Professional
- Azure Solution Architect

EDUCATION

- **Bachelor of Science - Computer Science** | Andhra University | 2010
- **Post Graduation – Data Science |** Manipal University | 2023 - Pursuing

Travel Eligibility

- **Valid B1/B2 US Visa Holder (Through 2032)**

WORK EXPERIENCE IN A NUTSHELL

- **Senior Staff SRE / Cloud Architect |** Vertisystem Global Pvt Ltd | Dec 2018 – Present

- **Staff Software Engineer |** MakeMyTrip | Aug 2016 - Nov 2018

- **System Software Engineer |** Speridian Technologies Pvt. Ltd | Nov 2014 - Aug 2016

- **Software Engineer** | QCS | May 2014 - Nov 2014

- **Business Process Associate** | TCS | Nov 2011 - May 2014

- **Intern** | IBM | May 2011 - Nov 2011

GURPREET SINGH

Principal Cloud Architect & Strategist| Platform Engineering Leader | Staff Site Reliability Engineer

Driving reliability, developer velocity & platform scalability in mission-critical cloud-native environments

SUMMARY

Strategic Cloud Architect and **Senior Staff Site Reliability Engineer** with **13+ years of expertise** designing and scaling **resilient, cloud-native platforms** across **AWS** and **Azure**. Renowned for driving **developer-centric transformation** through **Internal Developer Platforms (IDPs)**, **GitOps automation**, and **platform engineering excellence**. Expert in building **production-grade Kubernetes ecosystems**, defining **SLO-driven reliability frameworks**, and **automating infrastructure at scale** using **Terraform**, **ArgoCD**, and **GitHub Actions**.
Led **60%+ improvements in developer productivity**, **45% faster release velocity**, and **30% cloud cost reduction** through **GitOps**, **FinOps**, and **self-service platform models**. Equally comfortable **influencing architectural decisions**, **leading global incident response programs**, and **mentoring high-performance engineering teams** across **US-IND-EMEA**.
Operate at the intersection of **technical leadership** and **business strategy** – shaping **roadmaps**, mentoring **global teams**, and influencing **high-stakes decisions** across **platform**, **security**, and **infrastructure domains** to accelerate **business outcomes**. Authorized to work in India and hold a valid **B1/B2 visa** for the United States.

Technical Highlights:
AWS, Azure, Terraform, Kubernetes, GitOps (ArgoCD), FinOps, Backstage IDP, Prometheus, Grafana, Python, Shell Scripting, Infrastructure as Code (IaC), SLO/SLI Management, Cloud-native Architecture, Technical Leadership,

Leadership and Technical Expertise
- Cloud Architecture & Transformation
- Cloud Infrastructure, Security, and Governance (AWS, Azure)
- Platform Engineering and Developer Experience (DevEx)
- FinOps and Cloud Cost Management
- Automation, DevOps, and GitOps Frameworks
- Identity and Access Management (IAM)
- Vulnerability and Risk Management
- Solution Development and Requirement Analysis
- Technical Deployment and Delivery Management
- Team Leadership, Training, and Stakeholder Engagement
- Sales Support and RFP Technical Expertise

IT TOOLS & TECHNOLOGIES

Cloud Platforms	AWS, Azure
IaC & Automation	Ansible, Jenkins, Terraform, GitHub Actions
Programming	Python, Shell, Groovy, YAML, .NET, C#
Databases	MySQL, PostgreSQL, Elasticsearch
Orchestration	Kubernetes, Docker
Patterns	Microservice Architecture, REST API, Event-Driven Architecture, Distributed System Design
Observability	Prometheus, Grafana, CloudWatch

PUBLICATIONS

Medium Blog – Gurpreet's Engineering Blueprints

WORK EXPERIENCE

Principal Cloud Architect/ Senior Staff SRE | **Vertisystem Global Pvt Ltd | Dec 2018 – Present**

AWS | Azure | Kubernetes | Terraform | GitHub Actions | ArgoCD | Helm | Ansible | Prometheus | Grafana | Datadog | Python | Shell | GitOps | FinOps | SRE | Platform Engineering | Cloud-native SaaS Architectures

📌 **Principal Cloud/SRE Architect (Jan 2025 – Present)**

- Terraform-driven provisioning of **EC2, VPCs (incl. PrivateLink & Transit Gateway), ALB/NLB, IAM least-privilege roles**, and multi-AZ RDS.
- Automated DR runbooks (Route 53-based traffic-shift) sustaining **99.99 % uptime** across regions.

- Integrated **Splunk, Elastic, and OpenTelemetry** pipelines; defined golden-signal dashboards and **SLO/SLI error-budget alerts** (14× & 6× burn rates).
- Codified **100+** resources with reusable **Terraform modules** and **Ansible** playbooks - infra spin-up fell from hours to < 15 min.
- Rolled out org-wide SLO/SLI dashboards and 14 × / 6 × burn-rate alerts; **MTTR cut 35 %** and alert noise 40 %.
- MTTR cut by 35 % via auto-healing Lambdas and Chaos experimentation.
- Standardized CI/CD for **100+** microservices with **GitLab CI**, **Jenkins**, and **Argo CD** GitOps promotions, boosting release velocity **45 %**.
- **AWS Config + Security Hub rules** auto-remediate public S3 buckets and open security groups within minutes.
- Reclaimed idle EC2/EBS via rightsizing Lambda cron jobs, saving **30 %** on monthly AWS bill (>$40 k).
- Deployed **Kinesis Firehose + MSK for streaming ETL**; built PoC on GCP (GKE + Pub/Sub) for vendor comparison.
- **Terraform, Ansible** workflows codified across 200+ resources; accelerated infra lead time by 60 %.
- Authored production tooling in **Python & Go** (plus Bash/PowerShell wrappers) for cluster lifecycle, cost reports, and Splunk alert enrichment.
- **Mentored 50+ engineers** on **SRE**, **GitOps**, and **FinOps**; facilitate global on-call and RCA sessions across US-IND-EMEA time zones.
- **Partner** with **Product** & **Security** on **RFPs, SOC 2 evidence, and roadmap alignment**.
- Conducted **technical workshops** with enterprise clients, aligning **cloud architecture and DevOps strategies** with business goals. Supported pre-sales and RFP responses in partnership with sales teams.
- Rolled out a **Backstage-based Internal Developer Platform consumed** by 10+ squads; self-service repo - prod in one click.
- Standardized **GitLab + Jenkins pipelines (100+ micro-services)** with policy-as-code gates.
- Built and run HA clusters (Cluster-API + Terraform), enforcing RBAC, Pod Security Standards, HPA/VPA, and Cilium network policies for **zero-downtime upgrades**.

Key Metrics
- **99.99 %** SaaS availability across AWS & Azure
- **45 % faster** release cadence after CI/CD unification
- **30 % cloud-spend** reduction via automated rightsizing
- **35 % MTTR** improvement through SLO-driven ops

📌 **Senior DevOps Engineer**
- Recommended design changes to production systems in response to changing business process, capacity, risks and performance requirements
- Monitored and managed cloud spending, identifying opportunities for cost savings through resource **optimization**, **pricing model adjustments**, and **service right-sizing**.
- Evaluated existing application architectures, pinpointing opportunities for containerization to bolster **scalability**, **reliability**, and operational efficiency.
- **Design, deploy, and manage cloud infrastructure** across AWS, Azure, and Google Cloud Platform, ensuring alignment with best practices for security, monitoring, and performance optimization.
- **Automate infrastructure setup** using Infrastructure-as-Code (IaC) tools such as Terraform and CloudFormation, streamlining the provisioning process.
- **Manage CI/CD pipelines** for continuous integration and deployment, utilizing tools like Jenkins, GitLab, and CircleCI for automated testing and deployment.
- Designed, developed, and maintained **core infrastructure and systems**, ensuring scalability and reliability.
- Automated **security**, **compliance**, and **incident response procedures** using tools like **Terraform**.
- Managed and optimized **CI/CD pipelines** using **Jenkins**, **GitHub Actions**, and **GitLab CI** for seamless integration and deployment.
- Mentored and empowered team members in **DevSecOps practices**, enhancing reliability and scalability.
- Troubleshot and resolved **system outages**, ensuring operational continuity through detailed diagnostics.
- Utilized expertise in **Linux systems** and **networking stacks** to optimize performance and security.
- Conducted regular reviews and improvements to **IAM systems**, ensuring alignment with evolving security standards and protecting resources from unauthorized access or modification.
- Led initiatives for **containerization using Docker and Kubernetes**, ensuring high availability and scaling of applications across cloud platforms like AWS and GCP.
- Integrated **monitoring solutions** like **Prometheus**, **Grafana**, and the **ELK Stack** for proactive system health monitoring.
- Collaborated across teams to resolve **distributed system outages**, leveraging knowledge in **debugging and risk analysis**.
- Extensive experience with **AWS** cloud services, including **EC2**, **S3**, **IAM**, **Lambda**, **RDS**, and **CloudWatch**.
- Proven expertise in implementing **CI/CD** pipelines using tools like **Jenkins**, **GitLab CI/CD** and **AWS CodePipeline**.
- Measures for cloudbased applications and infrastructure, tools such as **Gitleaks**, **OwaspZap Dependency** , **Sonarqube**, **trivy**, **Burp Suite**, **Aqua Security**
- Led the transition to Infrastructure as Code (IaC) using tools like **Terraform**, eliminating manual operations and enhancing infrastructure management through code.
- Architected and deployed **microservice-based architectures**, leveraging **AWS Glue**, **Lambda**, and **Step Functions**.
- Drove **FinOps automation** across 200+ resources, reducing cloud spend by **30%** via idle resource reclamation and rightsizing.
- Embedded **GitOps workflows using ArgoCD** for **Kubernetes** deployment automation, improving release velocity and deployment
- consistency across clusters.
- Standardized **CI/CD pipelines** across **100+ microservices** using **Jenkins**, **GitHub Actions**, and environment-based templating.100
- Built and maintained **production-grade Kubernetes** clusters, implementing **RBAC**, **autoscaling**, **network policies**, and cluster lifecycle
- automation.
- Embedded **SRE principles across teams - SLO/SLI tracking**, **alerting automation, and MTTR** playbooks reduced incident recovery **by 35%.**
- Mentored 50+ engineers in modern **DevOps practices (SRE, FinOps, GitOps),** boosting engineering velocity by 30%.
- Partnered with **product**, **security**, and sales teams on RFPs, architectural reviews, and roadmap planning to align delivery with business
- outcomes.
- Authored **detailed design documents** and **operational runbooks for microservices** and distributed event-driven systems powering critical workloads.

KEY ENGAGEMENTS:

- Created and implemented the **company's cloud and DevOps transformation strategy**, significantly enhancing **operational agility and scalability**.
- **Partnered** with **senior architects and engineering leaders** to define **multi-quarter technical roadmaps**, aligning **business and technical** objectives.
- **Trained** and **mentored 80+ engineers** in **cloud**, **DevOps**, and **platform engineering** best practices, boosting team **productivity by 30%.**
- Supported **sales teams on RFP** responses and **technical solutioning, contributing** to securing **multi-million-dollar** enterprise **cloud projects**.
- Orchestrated the execution of **multiple high-stakes** cloud migration and **modernization** projects with **cross-functional** team leadership.
- Standardized cloud delivery methodologies, **improving** project **execution velocity and infrastructure** consistency across business units.
- Defined project scopes and deliverables aligned with stakeholder expectations and evolving business goals.
- Designed and deployed a critical **Covid Vaccination Registration Platform** for **Indian** and **international governments** on Azure under aggressive timelines.
- Drove **initiatives to enhance service reliability** and **SLO achievement**, reducing **Mean Time to Recovery (MTTR) by 35%** across critical services.
- Oversaw the **full-service delivery lifecycle**, from **stabilization** to ongoing **optimization, ensuring SLA compliance at 98%.**
- Conducted **platform-wide workshops** to instill **SRE best practices** across product and infrastructure teams.
- **Fostered** a strong **culture** of **technical excellence, mentorship, and innovation** across engineering teams.
- Automated over **100+ CI/CD pipelines**, **Kubernetes clusters**, and **cloud infrastructure deployments**, achieving **92% operational efficiency**.
- **Re-architected legacy monolithic infrastructures** into **microservices-based distributed systems**, improving system update agility by **50%**.
- Developed **Terraform-based IaC frameworks**, reducing deployment errors and enabling **rapid environment provisioning** across **multi-cloud** environments.
- Reduced enterprise cloud spends by **30% through FinOps-driven cost governance** frameworks.
- **Improved platform performance by 70%** post-transformation initiatives, driving better customer experience and system resilience.
- **Architected and delivered** secure, resilient, and massively scalable cloud infrastructure for mission-critical workloads.
- **Spearheaded** end-to-end **automation**-provisioning, **capacity** modeling, demand **forecasting**, and **FinOps** optimization-minimizing **toil** and reducing cloud spend.
- Applied cloud-native **design patterns** to ensure linear scalability and **low-latency performance** under peak traffic.
- Raised the engineering bar through **rigorous code reviews**, detailed **documentation**, and **self-service automation** portals that empowered development teams.
- Led **blameless post-mortems** and refined incident-response playbooks, embedding a culture of **continuous learning** and operational resilience.

STRATEGIC & EXECUTIVE LEADERSHIP:

- **Orchestrated multi-quarter cloud strategy** and **platform engineering roadmaps**, aligning deeply with **organizational OKRs**, **security mandates**, and **business KPIs** - directly influencing **technology direction** across **product**, **infrastructure**, and **DevSecOps** domains.
- **Built and scaled global engineering capability** by mentoring **80+ engineers** across **US-IND-EMEA** regions; instilled **ownership**, **SRE culture**, and **high accountability** through **hands-on coaching**, **blameless postmortems**, and **performance-driven rituals**.
- **Partnered with cross-functional leadership** (product, security, compliance, finance) to shape **investment decisions**, drive **FinOps governance**, and model **infrastructure capacity** - delivering **predictable cost control** and **availability at scale**.
- **Owned reliability and incident response programs** for **mission-critical workloads**; codified **DR runbooks**, led **Chaos SRE programs**, and reduced **MTTR by 35%** through **proactive automation** and **SLO adoption**.
- **Operated as a strategic advisor** and **engineering representative** in **high-stakes initiatives** - bridging **product**, **security**, and **business goals**, while shaping **architectural governance**, **sales/RFP strategies**, and **platform modernization efforts**.
- Delivering **principal-level influence** and execution across **distributed systems**, **reliability engineering**, and **infrastructure modernization** at scale.

CURRENTLY EXPLORING ENGAGEMENTS: *LLMs, RAG, ML on SRE*

- Predictive anomaly detection on metrics/logs with Isolation Forest or auto-encoders to catch issues before threshold alerts fire.
- Capacity forecasting with ARIMA/LSTM to drive autoscaler targets and FinOps rightsizing.
- Self-healing workflows: ML predicts failure → Argo Workflows / AWS SSM runs automated remediation.
- RAG-powered ChatOps bot (LangChain + Qdrant) that answers incident questions from runbooks/RCA docs in Slack.
- Root-cause clustering of trace IDs & log fingerprints (DBSCAN, t-SNE) to group correlated failures fast.
- SLO burn-rate prediction models that forecast error-budget exhaustion and trigger early rollbacks.
- LLM-generated RCA summaries that condense logs, timeline, and PagerDuty notes into post-mortems.
- Reinforcement-learning alert tuning that adapts thresholds based on "noise vs. signal" feedback.
- LLM-generated chaos experiments (LitmusChaos) to broaden failure-mode coverage without manual scripting.
- Exploring production use cases in ML-based anomaly detection, SLO forecasting, and RAG-driven ChatOps to enhance observability and incident intelligence.

OPEN-SOURCE PROJECT

- *Building an internal automation framework using GO and Cobra CLI that can give a boost to observability, reliability, availability, and performance across distributed systems.*

Staff Software Engineer | MakeMyTrip | Aug 2016 - Nov 2018

- Led initiatives to modernize legacy monolithic applications into scalable, containerized microservices hosted on AWS.
- Designed and implemented secure CI/CD pipelines integrating code quality checks, security scanning, and automated deployments.
- Strengthened observability and incident response systems by integrating ELK Stack (Elasticsearch, Logstash, Kibana) alongside AWS CloudWatch.
- Advocated for and facilitated cloud-native adoption across engineering teams through workshops and DevOps best practices coaching.
- Migrated critical production services to Kubernetes, improving deployment agility and system resilience by 40%.
- Developed standardized CI/CD pipelines, reducing deployment failure rates by 35% and increasing release frequency.
- Built and deployed containerized solutions using Docker and Kubernetes, enabling scalable application management.
- Enhanced system observability through dashboards built on Grafana
- Implemented centralized observability dashboards, reducing incident detection times by 50% across cloud-hosted services.
- Conducted DevOps enablement programs, training 100+ engineers on cloud-native tooling, GitOps workflows, and SRE fundamentals.
- Successfully improved system uptime and reliability through proactive monitoring, automated alerting, and SLA-driven incident management practices.

System Software Engineer | Speridian Technologies Pvt. Ltd | Nov 2014 - Aug 2016

- **Led end-to-end engineering** of CRM backend workflows and portal customizations for marquee clients including **Myntra**, aligning tightly with business operations and service KPIs.
- **Orchestrated seamless integration** of Oracle Service Cloud (RightNow CX) with internal enterprise applications, significantly improving **call center efficiency and customer support responsiveness.**
- Designed and implemented **highly responsive customer portals and self-service widgets** using **PHP, JavaScript, and REST APIs**, improving user engagement and resolution rates.
- **Elevated First Contact Resolution (FCR)** and reduced call abandonment by implementing proactive **multi-channel support workflows** (chat, email, knowledge base).
- Developed and deployed **real-time operational dashboards**, empowering business leads to track support performance and **optimize customer satisfaction strategies**.
- **Spearheaded a company-wide CRM platform upgrade**, reducing ticket resolution SLAs by **20%**, while mentoring junior developers on scalable CRM best practices.
- Successfully **Designed, Developed and Deployed** the **CTI system** across multiple regions, resulting in improved **agent productivity** and faster call resolutions.

Other Experience

Software Engineer | QCS | May 2014 - Nov 2014
Business Process Associate | TCS | Nov 2011 - May 2014