

CHANDRA SEKHAR TRIPATHY

Principal Technical Architect | GenAI & Agentic AI Solutions | Cloud Architecture | SRE | SECURITY | DEVOPS

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PROFILE SUMMARY

Strategic Technical Architect and Principal SRE specializing in GenAI and agentic AI solutions with 18+ years of experience designing enterprise-grade cloud architectures and building resilient infrastructure. Domain expertise in insurance technology with proven delivery for global insurance carriers. Pioneered agentic AI systems reducing manual operations by 60% using LLMs (ChatGPT, Claude, AWS Bedrock) and Model Context Protocol (MCP) integration. Proven track record in reducing infrastructure costs by 40%, architecting 60+ microservices ecosystems handling 1M+ daily requests, and maintaining 99.9% uptime while ensuring SOC2 and ISO 27001 compliance. Expert in end-to-end solution architecture, AWS multi-account strategies, security operations (SOC), threat detection, and AI-powered infrastructure orchestration. Expert in AIOps practices leveraging AI/ML for predictive monitoring, anomaly detection, and automated incident response

PROFESSIONAL EXPERIENCE

Principal Technical Architect & SRE

Electrum (Pick My Solar India Pvt. Ltd.) — Hyderabad | July 2023 – Current

- **Solution Architecture:** Designed end-to-end multi-tier architecture for solar marketplace, defining microservices boundaries, data flow patterns, and API contracts across 60+ services
- **Security Operations & SOC:** Established comprehensive security framework with GuardDuty, Security Hub, Inspector achieving zero critical findings and SOC2 compliance
- **Infrastructure at Scale:** Managed 60+ microservices handling 1M+ daily requests with 99.9% uptime SLA across multi-region AWS infrastructure
- **Cost Optimization:** Reduced AWS costs by 40% through strategic architectural decisions, ECS migrations, and reserved instance planning
- **Multi-Account Strategy:** Architected AWS multi-account structure using Organizations, Control Tower, and SCPs for security isolation
- **AI Solution Architecture:** Designed and implemented agentic AI systems integrating ChatGPT and AWS Bedrock APIs, reducing manual operations by 60%; built Model Context Protocol (MCP) servers enabling AI-driven automation across AWS, Bitbucket, and development workflows
- **Security Automation:** Implemented automated vulnerability remediation and compliance monitoring using Lambda and EventBridge
- **Observability:** Architected comprehensive monitoring with DataDog, distributed tracing, and SLO/SLI tracking
- **Polyglot Development:** Architected solutions using Python, Node.js, and modern frameworks; guided engineering teams across diverse technology stacks

Technical Architect

Value Momentum Inc — Hyderabad | November 2017 - July 2023

- **Enterprise Architecture:** Designed cloud-native architectures for TMHCC Insurance, defining technical roadmaps and migration strategies
- **Insurance Domain Architecture:** Designed cloud-native architectures for TMHCC Insurance (Tokio Marine Holdings Group), a global insurance carrier, defining technical roadmaps and migration strategies for policy management and claims processing systems
- **Security Architecture:** Architected security frameworks with VPC, Security Groups, encryption at rest/transit achieving SOC2 and ISO 27001
- **Container Platform:** Designed enterprise platform managing 1000+ containers with HA, DR, and auto-scaling across multi-region
- **Security Operations:** Established SOC processes, implemented Security Hub, GuardDuty achieving zero critical findings

- **Disaster Recovery:** Designed multi-region DR strategies achieving RPO < 30 min, RTO < 2 hours for critical workloads
- **Team Leadership:** Built 12-member team, conducted architecture reviews, established DevSecOps culture

Senior Software Engineer & Developer

Various Organizations | 2009 - 2017

Progressive career through Tech Lead Intellisavvy, Senior Lead (Ebutor), Senior Engineer (Laine India), and Developer roles. Built location-based APIs, IoT backends, e-commerce platforms using PHP, Node.js, Python, and modern frameworks.

KEY TECHNOLOGIES

Cloud & Architecture: AWS (ECS, EKS, Lambda, CloudFormation, CDK), Azure (foundational), Multi-cloud strategies, Kubernetes, Docker, Helm

AI/ML & Automation: LangChain, LlamaIndex, OpenAI, Claude API, AWS Bedrock, Anthropic, ChatGPT Enterprise integration, Model Context Protocol (MCP), Agentic Workflows, LangGraph, CrewAI, Ollama, N8N

Security & Compliance: GuardDuty, Security Hub, Inspector, WAF, CloudTrail, Config, Secrets Manager, KMS, Macie, SOC2, ISO 27001, Snyk, SonarQube

Containers & IaC: Docker, Kubernetes, ECS, EKS, Terraform, Ansible, CDK (Python), CloudFormation, Helm

CI/CD & Monitoring: Jenkins, GitHub Actions, CodePipeline, DataDog, New Relic, ELK, Splunk, CloudWatch, Prometheus, Grafana

Programming: Python, Node.js, JavaScript, Go, PHP, Ruby, Java, C# (familiar)

Databases: PostgreSQL, MySQL, MongoDB, DynamoDB, Redis (SQL & NoSQL expertise)

Vector DB: Pinecone, FAISS, Chroma, PgSQL

Development Tools & Platforms: GitHub, Docker Desktop, Minikube, Visual Studio Code, Postman, SQL databases (PostgreSQL, MySQL), Azure familiarity, GitHub Copilot, Claude Code, Cursor IDE.

CORE COMPETENCIES

- Technical Architecture & Technical Leadership
- Security Architecture & SOC Operations
- Multi-Account Cloud Strategy & FinOps
- Microservices Architecture & Container Platforms
- DevSecOps & Compliance (SOC2, ISO 27001)
- AI-Powered Automation & Infrastructure Orchestration
- Disaster Recovery & Business Continuity Planning

EDUCATION & CERTIFICATIONS

Master's in Computer Science | Biju Patnaik University (2006-2009)

Bachelor's in Science | North Orissa University (2003-2006)

AWS Certified Solutions Architect - Associate • AWS Certified Developer - Associate

AWS Cloud Practitioner • Red Hat Certified System Administrator • Certified Scrum Master

NOTABLE ACHIEVEMENTS

- Architected 60+ microservices ecosystem handling 1M+ daily requests with 99.9% uptime
- Established SOC framework with zero security breaches, 70% faster incident response, SOC2/ISO 27001 compliance
- Delivered 40% AWS cost reduction while scaling infrastructure 3x through architectural optimization
- Designed DR solutions achieving RPO < 15 min, RTO < 1 hour for business-critical systems
- Pioneered AI automation reducing manual operations by 60% through agentic workflows