

Sachin Rana

Principal Solutions Architect · Fractional CTO · AI/LLMOps Lead

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PROFILE

Principal Solutions Architect and founder of Ideaxa Solutions, with 10+ years designing and running production systems across enterprise multi-cloud (AWS, Azure, hybrid bare metal), sovereign AI and LLMOps (Model Context Protocol, LiteLLM, local inference), and high-throughput industrial telemetry. Track record of cutting recurring cloud spend by up to 85%, zero-loss enterprise database migrations, and nine production physics-informed digital twins. Available for fractional CTO, architecture advisory and fixed-scope delivery engagements.

85%

cloud spend removed

99.999%

SCADA telemetry reliability

9

production digital twins

<50 ms

ClickHouse analytics

CORE CAPABILITIES

- **Cloud & infrastructure:** AWS and Azure landing zones, Terraform IaC with drift detection, EKS/AKS, hub-spoke networking, NetBird/WireGuard zero-trust overlays, CrowdSec hardening, Proxmox VE.
- **Sovereign AI & LLMOps:** MCP server design, multi-agent engineering loops, LiteLLM gateways with token governance and fallback, vLLM/Ollama on private GPUs, Qdrant hybrid RAG.
- **Industrial telemetry:** ClickHouse (ReplacingMergeTree, materialised views), EMQX Enterprise MQTT, LoRaWAN, Modbus and BACnet, Node-RED, TimescaleDB, PostgreSQL.
- **Digital twins:** simulation platforms for 33/11 kV substations, chiller plants (COP, enthalpy), VRF systems, data-centre cooling and microgrids, bound to live meter data.

EXPERIENCE

Infrastructure Lead · Brick AI Inc. 02/2025 – present · remote

Founder & Principal Solutions Architect · Ideaxa Solutions 2019 – present

- **IDEAXA Ship (autonomous PaaS):** detects runtimes (Node.js, Python, .NET 8, Next.js), builds multi-stage containers and provisions TLS domains in under 45 seconds.
- **Industrial telemetry:** 24/7 ClickHouse pipeline ingesting live smart-meter data with zero data loss over multi-week sustained runs.
- **Digital twin suite:** nine industrial environments, including a 50 MW data centre, central chiller plants and urban distribution grids.
- **Bare-metal repatriation:** moved heavy compute from public cloud to dedicated GPU and NVMe clusters, cutting recurring cost by 85%.

Senior Technology Consultant · Ernst & Young LLP 04/2022 – 03/2023

IT Analyst · Tata Consultancy Services 07/2021 – 11/2021

Lead Consultant · Ideaxa Engineering & Co. 02/2019 – 06/2021

IoT Engineer · Shunya Technologies 08/2015 – 01/2019

Selected work across these roles

- Architecture across AWS (VPC, ECS, RDS, Lambda) and Azure (landing zones, AKS, Azure SQL); a 1 TB SQL Server migration to Azure with zero data loss.
- Compliance-hardened Terraform modules and GitOps CI/CD; edge-to-cloud IIoT for FMCG condition monitoring on Azure IoT Edge.

EDUCATION & STACK

B.Tech, Electronic & Electrical Engineering
Lovely Professional University, 2011 – 2015

Languages: Python, TypeScript, Go, .NET, C++, SQL, Bash
Data: ClickHouse, PostgreSQL, TimescaleDB, Redis, Qdrant