Ramakrishna Sudabathula

Technical Lead – AI Data Platforms, Automation & Full-Stack Engineering

Target Roles: Technical Lead | Engineering Manager | AI Data Platform / Solution Architect

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PROFESSIONAL SUMMARY

Technical lead with **14+ years** of experience, currently leading an 8-member automation team at Centific that builds **Artificial Intelligence (AI) training-data platforms**: a live audio/video streaming platform, **40+ automated AI quality checks per video**, Kubernetes media pipelines and **24-hour automated client delivery** across **10+ concurrent projects**. Previously joined a startup as its **second employee and helped grow it from 5 to 80+ people**, delivering ERP, logistics and manufacturing systems for clients such as Brandix and Shahi Exports. Combines hands-on full-stack, testing and **Generative AI (GenAI)/agentic AI** skills with people management, client engagement and pre-sales.

Core Tech Stack: Angular · React · Node.js (Express, NestJS) · Python (FastAPI, Flask) · Apache Kafka · PostgreSQL · FFmpeg · LangChain · N8N · Google ADK · Generative AI (GenAI) · Large Language Models (LLM) · Agentic AI · Machine Learning (ML)

Cloud & DevOps: Microsoft Azure (Azure Kubernetes Service – AKS, Load Balancer, Front Door) · Amazon Web Services – AWS (EC2, S3) · DigitalOcean · Docker · Kubernetes (K8s) · Azure DevOps · GitHub Actions · Continuous Integration / Continuous Deployment (CI/CD)

Leadership & Delivery: People Management · Stakeholder Management · Agile/Scrum · Sprint Planning · Pre-Sales & Cost Estimation · Hiring & Interviewing · Client Engagement

KEY RESPONSIBILITIES – TECHNICAL LEAD, CENTIFIC

- **Planning & delivery:** Plan sprints and assign work across 10+ concurrent projects, with a primary and a secondary owner on each.
- **Architecture:** Design solution architecture for AI data platforms: collection, processing, AI QA and client delivery.
- **Code & release quality:** Review and approve pull requests and sign off on staging and production releases.
- **Testing strategy:** Define and drive unit, end-to-end (Playwright, pytest) and load/performance testing.
- **Scheduled jobs:** Maintain and monitor scheduled batch, conversion and delivery jobs.
- **DevOps coordination:** Work with DevOps on infrastructure, deployments and Kubernetes capacity, and set priorities when resources are limited.
- **Client engagement:** Lead client demos, UAT reviews and weekly syncs with international stakeholders.
- **Estimation & pre-sales:** Prepare effort, timeline and cost estimates for RFPs, change requests and sprints.
- **People management:** Hire and interview, mentor team members, and plan shifts, leave and support coverage.
- **Privacy & security:** Handle consent and participant data-deletion requests, and own the remediation of infosec findings.
- **AI-assisted engineering:** Use agentic-AI and AI coding tools (Claude, Copilot, Cursor) to speed up development.

PROFESSIONAL EXPERIENCE

Centific, Hyderabad Dec 2023 - Present

Technical Lead – Automation & AI Data Platforms Hyderabad, India

Team & Delivery Leadership

- **Portfolio ownership:** Lead an **8-member automation team** running **10+ client and internal projects at the same time**, covering data collection, annotation, evaluation, ASR and payments workflows.
- **Ownership model:** Put a **primary and secondary owner on every project** and run weekly status reviews against Jira epics. This keeps delivery going through leave, support requests and shift changes.
- **Sprint delivery:** Ran Agile/Scrum delivery with **9 consecutive sprints and zero spillovers**.

Data Collection Platforms & Automation

- **Live streaming platform:** Built and own a **live audio/video streaming platform** where consented participants join **recorded data-collection sessions** from home over a public link. It was sized for **~60,000 hours from ~10,000 participants**. Owned the production setup: Kubernetes ingress, video-call relay (TURN), DNS/TLS and firewall.
- **Automated AI QA:** Designed a library of **40+ automated quality checks per video**:
  - duplicate detection using MD5 fingerprints
  - speaker count by session role and single-face detection
  - background, reverb, frame-gap and audio–video drift checks
  - topic and language adherence

  Cut manual QA review effort by **~30%**, estimated the infrastructure cost of each check, and reused the library across **5+ projects**.
- **Media & delivery pipelines:** Built video compression and conversion services (FFmpeg/x264) on Kubernetes, with automatic reconciliation and re-sends. Built **delivery automation to client S3 buckets**, delivering approved data **within 24 hours of recording**, with sessions reviewed and accepted in the in-house annotation platform (Data Canvas).
- **Scheduled jobs & reliability:** Maintain and monitor **scheduled jobs** (batch processing, media conversion, reconciliation and automated client deliveries), handling failures, re-runs and capacity issues to keep delivery on time.
- **Data privacy & compliance:** Run **consent-based data collection** and handle **participant data-deletion requests** in line with client privacy requirements.
- **Computer-vision pilot:** Led a **computer-vision image-collection pilot**, building pre- and post-QA checks and a web app, and delivered the output in JSON and XML.
- **Other AI-data programs:** Delivered a chat-conversation export pipeline, and built automation services for speech-recognition (ASR), healthcare-annotation scoring (AI judgement and reasoning agreement) and payments-data projects.

Quality Engineering & Testing

- **UI test automation:** Built **end-to-end test suites with the Playwright framework** for React applications.
- **Backend testing:** Wrote **pytest** test suites for Python services.
- **Load & performance testing:** Ran **load and performance testing** of the self-built live streaming platform, validating stable performance with **100+ concurrent sessions**.

Pre-Sales, AI & Platform Engineering

- **Effort & cost estimation:** Prepare solution designs and **effort, timeline and cost estimates** for new RFPs, change requests and sprint planning, including SMS data collection and user-uploaded image, album and video programs. Identified **70–80% reuse** of existing workflows to reduce build effort.
- **Agentic AI:** Build AI/ML applications and internal agentic-AI products with Angular and Python, integrating LLMs and agents.
- **Annotation & synthetic data:** Led synthetic data generation, pre- and post-processing scripts and automation for the annotations platform.
- **DevOps:** Optimised Continuous Integration / Continuous Deployment (CI/CD) pipelines and deployed React, Node.js, Python and Angular applications across Azure and AWS.

Schemax Experts Techno Crafts Pvt. Ltd., Visakhapatnam Aug 2012 - Dec 2023

Solutions Architect (2021 - 2023) · Technical Lead (2018 - 2021) · Senior Software Developer (2016 - 2018) · System Analyst (2012 - 2016) Visakhapatnam, India

- **Startup growth & promotions:** Joined as the **second employee**, helped the company grow from **5 to 80+ people**, and was promoted from System Analyst to **Senior Software Developer (2016)**, **Technical Lead (2018)** and **Solutions Architect (2021)**.
- **Client portfolio & leadership:** Handled **5 major clients at the same time** with a team of 15+ engineers, mentored the team, handled client communication directly, and contributed to pre-sales and cost estimation.
- **End-to-end ownership:** Took full ownership of projects, from gathering requirements to final delivery.
- **Onsite implementation:** Travelled onsite (India and Sri Lanka) to implement projects, making sure they deployed successfully and users adopted them.
- **Domain expertise:** Delivered solutions in textile and garment manufacturing (**Brandix, Shahi Exports**), aqua products (**Sandhya Aqua**), supply chain (**Varun Group**), government accounts (**AP Intermediate Board**), plus logistics SaaS and automotive retail and finance products.
- **Full-stack development:** Built and maintained React, Node.js and PHP (Laravel, Joomla, Yii) applications.
- **Cloud deployment:** Deployed applications on DigitalOcean and AWS Linux environments, including domain and firewall setup.

KEY PROJECTS

AI Training-Data Collection Platform & QA Automation – *Centific (current)*
A platform for collecting audio, video and image data for AI training. Consented participants record sessions on a live streaming platform over a public link, and each recording is compressed and converted on Kubernetes. Every video then passes **40+ automated AI quality checks**, is reviewed by QA in the in-house annotation platform, and is pushed automatically to the client's S3 storage, with participant data-deletion requests handled along the way. Owns the architecture, production infrastructure, QA check design and cost model, and load and performance testing (100+ concurrent sessions), plus coordination with delivery and client stakeholders.

Tech Stack: Python, Kubernetes (AKS), WebRTC/TURN, FFmpeg/x264, AWS S3, Azure, Load & Performance Testing

AgenticAI – AI Automation Framework – *Centific*
An AI orchestration framework that automates complex multi-step workflows. Selected and integrated suitable LLMs (Claude/GPT) with Python backends and exposed secure API endpoints for multi-agent coordination, with LangChain, Google ADK and N8N handling task reasoning and automated decisions.

Tech Stack: Python, LangChain, Google ADK, N8N, LLMs (Claude, GPT)

Annotations & Synthetic Data Platform – *Centific*
A large-scale data labelling and generation platform for AI training. Led the LLM-based synthetic data generation, built pre- and post-processing scripts for diverse data formats, and set up automated QA services and HITL (human-in-the-loop) validation workflows.

Tech Stack: Python, Angular, LLMs, HITL workflows

SMS Payment Tracker – Native Android App – *Personal Project*
Built to learn native Android development: the app reads payment-related SMS messages and automatically categorises the transactions, with local Room storage (schema version 4) and **95 JUnit unit tests**.

Tech Stack: Kotlin 2.0, Jetpack Compose, Material 3, Room (SQLite), Coroutines & Flow, Gradle, KSP, JUnit

AutoXpert – Automotive Retail & Finance ERP – *Schemax*
A complete solution for automobile retailers and their finance companies, used by **10+ dealerships**, covering vehicle sales, service, and finance and loan management.

AquaX – Digital ERP for aquaculture and food processing – *Schemax*
An end-to-end ERP for the shrimp and food-processing industry. Integrated facial-recognition attendance for 6,000+ employees and used RFID and smart IoT devices to automate warehouse operations.

Tech Stack: Facial Recognition, RFID, IoT devices

Mastery – Logistics Management System – *Schemax*
A cloud-based SaaS product with an event-driven architecture. It provides an integration layer for external applications and data warehouses.

Tech Stack: Apache Kafka, GraphQL, Cosmos DB

Camp Management System – Board of Intermediate Education, AP – *Schemax*
A mission-critical system for tracking employees and remuneration at examination centres. It was built for high concurrency and supported 2,000+ concurrent users at peak.

BTS & Mini Orders – Brandix – *Schemax*
A real-time, barcode-based system that tracks garment manufacturing from cutting to packing. Implemented onsite in India and Sri Lanka.

Bozzuto WMS – Warehouse Management System – *Schemax*
A logistics solution that gives real-time visibility into warehouse storage, sorting and stock movement, connecting field staff with warehouse managers.

MTA (Verity Platform) – Real-time public safety and incident-tracking dashboard – *Schemax*
A real-time dashboard that combines several data sources into one view of ongoing safety incidents for emergency responders and administrative teams.

SAMS – Signage Asset Management System – *Schemax*
A central asset-management application that let clients monitor and run 300+ signage projects at the same time, with tools for vendor and asset-health tracking.

CORE SKILLS

Frontend
HTML, CSS, JavaScript, TypeScript, AngularJS, Angular, React, Bootstrap, AntD

Backend
Node.js (Express, NestJS), Python (Flask, FastAPI), PHP (Laravel, Yii2), JWT

Mobile
Android (Kotlin, Jetpack Compose, Material 3, Room, Coroutines & Flow), Gradle

Databases
PostgreSQL, MySQL, MSSQL, Cosmos DB, MariaDB, Neo4j (graph DB)

AI & Data
Artificial Intelligence (AI), Machine Learning (ML), Generative AI (GenAI), Large Language Models (LLM), Agentic AI, LangChain, Google ADK, N8N, synthetic data, HITL, automated AI QA, data privacy & consent workflows

Media & Streaming
Live audio/video streaming, WebRTC/TURN, FFmpeg/x264 video processing, Kafka, GraphQL, microservices, S3 delivery

Testing & Quality
Test automation, Playwright (React end-to-end), pytest (Python), load & performance testing, code reviews

DevOps & Tools
Azure (AKS), AWS, DigitalOcean, Docker, Podman, Kubernetes, Azure DevOps, GitHub Actions, Jira, New Relic, AI coding tools (Claude, Copilot, Cursor)

ACHIEVEMENTS

- Helped a startup grow from 5 to 80+ people as its second employee.
- Delivered 9 sprints with zero spillovers, for 100% on-time delivery.
- Designed a library of 40+ automated AI quality checks, reused across 5+ projects and cutting manual review effort by ~30%.
- Built a live streaming platform for ~60,000 hours of data collection, and load-tested it with 100+ concurrent sessions.

EDUCATION, CERTIFICATIONS & MORE

MCA (Master of Computer Applications) – Noble Institute of Science & Technology, Visakhapatnam, India

Certifications (Udemy – Certificates of Completion, 2025): Python for Data Science & Machine Learning Bootcamp · Apache Kafka Practical Guide · Neo4j GraphDB Foundations with Cypher · Azure DevOps Fundamentals

Proofs of Concept: Kafka event-driven pipelines · Keycloak RBAC with Docker/Podman · Google ADK & N8N agents

Languages: English, Telugu, Hindi | **References:** Available on request