

# VENKATA KONDEPATI

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## DIRECTOR – SOFTWARE ENGINEERING & ARCHITECTURE

Innovative and strategic technology leader with extensive proven success in building and leading high-performing, cross-functional teams across software engineering, data engineering, and cloud platform development. Deep expertise in designing and implementing cloud-native architectures on AWS, Azure, and GCP, driving the transformation of legacy systems, and spearheading enterprise-wide digital transformation initiatives. Demonstrated excellence in data platform engineering, big data processing, API-driven architectures, and leading end-to-end Product Development, DevOps, SRE, Customer Operations, and Product Support functions. Strong Agile leadership experience in global, fast-paced environments. Certified PMP, ITIL, and AWS Solutions Architect, with a dedicated focus on optimizing data ingestion, governance, and delivery to drive business value.

## CORE COMPETENCIES

Full Stack Architecture (.NET, Java, Node.js, Angular, React) | Containerization (Docker, Kubernetes) | AI/ML & Generative AI Use Cases | SQL & NoSQL Database Design | CI/CD Automation (Jenkins, GitHub Actions) | Data Engineering & Architecture | Cloud Architecture & Engineering (AWS | Azure | GCP) | Big Data Platforms & Data Lakes (Snowflake | Data Bricks) | Data Ingestion & API-Driven Architectures | Agile Leadership & Transformation (SAFe | Scrum) | Global Team Leadership & Talent Development | Platform Strategy & Execution | DevOps & CI/CD Automation | Digital Transformation & Legacy Modernization | Customer-Focused Innovation | High-Performance Team Building | Data Operations & Data Governance | Software Development Lifecycle (SDLC) Management | Data Delivery Methods (API | Streaming | Real-Time) | Cross-functional Collaboration & Stakeholder Management

## TECHNICAL SKILLS

- **Programming Languages:** Python | Java | .NET (C# | ASP.NET | Angular | ReactJS | TypeScript) | Scala | SQL
- **Web Technologies:** REST | API Gateway | JSON | XML | JavaScript | GraphQL
- **Databases:** SQL Server | Oracle | PostgreSQL | MySQL | Azure SQL | AWS RDS | Oracle Spatial | DynamoDB
- **DevOps / IaC:** Jenkins | Azure DevOps | Terraform | Kubernetes | Docker | CloudFormation
- **Monitoring Tools:** Raygun | AppDynamics | Dynatrace | Dotcom | CloudWatch
- **Cloud Technologies:** AWS (S3 | RDS | Athena | EMR | Lambda | EKS | ECS | EC2 | Redis | VPC | Route 53 | API Gateway | IAM | Security) | Azure (Blob | SQL DB | Data Factory | Functions | Databricks | AKS) | Snowflake | Databricks | GCP (BigQuery | Compute Engine | Cloud Storage | GKE | App Engine | Cloud Composer)
- **Data Engineering:** Apache Spark | PySpark | Airflow | Data Lakes | Delta Lake | Parquet | ETL tools (Fivetran | FME)
- **Big Data Tools:** Hadoop | Hive | Pig | Talend | Denodo
- **GIS Technologies:** ArcGIS Desktop | ArcObjects | FME Desktop | ArcGIS Server | Map Services | ArcSDE | ArcGIS Pro

## PROFESSIONAL EXPERIENCE

S&P Global, Dallas, TX

2010-Present

### Director – Software Engineering, Cloud Architecture, Data Engineering, DevOps and SRE

Responsible for reviewing current architecture and proposing scalable, secure, and maintainable future-state architectures. Lead proof-of-concept (POC) initiatives to validate architectural strategies, while mentoring cross-functional teams on best practices in architecture, development, and operational excellence. Ensure product stability and performance by maintaining support aligned with defined SLAs.

- **Strategic Technology Leadership:** Defined and executed long-term technology vision and roadmaps for internal agency platforms and multi-carrier distribution systems, driving alignment with enterprise architecture and business strategy.
- **Organizational Leadership:** Hired, led, and mentored high-performing teams of **engineering managers, architects, and senior developers** across global delivery centers. Oversaw performance appraisals, career development, and succession planning.

- **Product & Platform Ownership:** Led the development and modernization of enterprise data platforms and customer identity solutions, including Secure Access Management (SAM), Enerdeq, EDIN, and Comanche. Delivered scalable, self-service capabilities supporting analytics, entitlements, authentication, and digital data delivery for internal users and external clients.
- **Financial & Resource Management:** Managed multi-million-dollar budgets across engineering initiatives. Established staffing plans, evaluated FTE/vendor mix, and optimized capacity planning in collaboration with business and PMO.
- **Cross-Functional Collaboration:** Partnered with Product, UX, IT Infrastructure, Compliance, and Go-To-Market teams to ensure timely and secure delivery of agent and customer-facing capabilities.
- **Agile Transformation:** Scaled Agile delivery frameworks (SAFe/Scrum) and DevSecOps practices across product teams. Embedded CI/CD, automated testing, and iterative planning processes to ensure delivery efficiency and quality.
- **Operational Excellence:** Oversaw incident response and postmortems; established **SLAs, SLOs, KPIs**, and operational KPIs for availability, performance, and delivery metrics. Championed root cause analysis and system resiliency improvements.
- **Modernization & Innovation:** Led the modernization of monolithic platforms into **cloud-native, microservices architectures** deployed on AWS and Azure. Encouraged use of emerging tech (AI, chatbots, API marketplaces) to improve agent and customer experience.
- **Stakeholder Communication:** Regularly presented technical roadmaps and updates to executive stakeholders. Served as a trusted advisor to senior leadership on build-vs-buy decisions, vendor evaluations, and tech debt remediation.
- **Process & Governance Leadership:** Developed and executed process improvement programs to enhance engineering effectiveness and product alignment. Championed standardization across distributed engineering teams.
- Spearheaded the execution of cloud and data platform strategies for a globally distributed team, transitioning on-premise applications to cloud-native platforms (AWS, Azure & GCP).
- Drove the design and implementation of a unified data platform architecture for internal and customer-facing solutions, leveraging Snowflake, Azure Data Factory, and Denodo, providing over 70% cost savings and improved performance.
- Led Cloud Delivery and TechOps teams in modernizing infrastructure using SRE principles (SLOs/SLIs/error budgets), and introduced advanced observability and alerting, achieving 99.9% uptime for multi-region deployments.
- Led the evolution of the enterprise ingestion platform by embedding GenAI capabilities for data classification and automation, accelerating ingestion workflows and aligning with enterprise product strategy.
- Delivered intelligent automation across CI/CD pipelines using Jenkins and SonarQube, reducing release time from 4 hours to 4 minutes; enabled self-healing deployments as part of AIOps adoption strategy.
- Partnered with multiple business units and product teams to define data delivery roadmaps; architected multi-tenant managed services enabling real-time data access through API/streaming layers.
- Fostered an Agile culture across teams, implementing continuous learning initiatives, mentoring future leaders, and building a high-performance engineering organization.
- Administered and optimized 57+ Snowflake accounts supporting multiple internal client teams; implemented cost-aware data services and automated resource scaling to drive operational efficiency.
- Architected and deployed an internal AIOps framework integrating telemetry, log analytics, and proactive incident detection; reduced mean time to detect (MTTD) and resolve (MTTR) by 40%.
- Prioritize the product and technical backlog based on business objectives, ensuring alignment with company strategy and maximizing value.
- Lead cross-functional teams in high-level architectural discussions, translating business vision into actionable recommendations for functional and technical strategies.
- Collaborate with senior management to advise on long-term technical strategy, researching and recommending new technologies to drive innovation.
- Oversee the execution and deployment of strategic technology initiatives, ensuring successful delivery and operational excellence.

- Set the vision, goals, and direction for the engineering teams, guiding them through complex organization-wide projects.
- Foster a culture of Agile development, continuously mentoring teams and identifying future resource needs.
- Drive major technology initiatives that integrate GenAI capabilities, significantly improving data classification and workflow automation.
- Consult with both internal and external stakeholders to produce comprehensive strategic designs, ensuring solutions meet business requirements and technical standards.

### Key Projects

- **NIMS / Bluedoor to SAM:** Migrated NIMS entitlements data to the SAM modern platform by validating with the book of business and cheat sheet to remove stale customer data and ensure customer subscriptions aligned with contracts in Salesforce. Improved data quality by 40% with zero customer issues. Reused migration and validation tools developed for NIMS to migrate Bluedoor data and retired them successfully.
- **NIMS and Bluedoor to AWS Cloud migration:** migrated NIMS and Bluedoor to AWS cloud by implementing cloud native solutions.
- **Bladerunner Project:** Led architecture review for migrating on-prem apps to AWS using serverless and microservices designs across 60+ product development teams. Managed cloud security, optimized costs through FinOps, and isolated access to resources for virtual teams using ABAC policies. Successfully completed the migration; data centers were closed as planned, resulting in cost reduction, improved product availability, and optimized SRE resources through automated remediation with CloudWatch alarms and playbooks.
- **GPE FastLMP:** Architected a solution to predict electricity prices using historical data, reducing model processing time from 32 to 2 hours by leveraging Snowflake for data processing. Published reports and dashboards through Power BI and integrated them with the S&P Connect platform.
- **Datalake Project:** Designed and implemented scalable data pipelines using Apache Spark and PySpark to extract data from multiple sources via Denodo, transform and export it into Parquet format, and load it into Amazon S3. Registered the datasets in the S&P Data Catalog with accurate schema definitions to support efficient downstream analytics and querying.
- **FME Server on EKS:** Deployed FME Server on Amazon EKS to orchestrate and execute large-scale data integration jobs, extracting data from on-prem databases and loading into Snowflake. Managed infrastructure provisioning and cluster configuration using Terraform and YAML. Successfully executed over 10,000 jobs across multiple business divisions, supporting high-volume, automated data workflows
- **Cloud Data Factory:** Developed Azure Data Factory pipelines to enable scalable data ingestion for Azure SQL databases from Denodo databases.
- **EDIN 7.0:** Rewrote the product architecture, retaining \$120M in revenue and achieving 99.9% uptime

### ADDITIONAL EXPERIENCE

**Wipro Technologies Ltd**, Bangalore, India

**Feb 2007 - Feb 2010**

#### Technical Lead | Consultant

*UK-based Energy & Utilities Clients | Onsite: Hinckley & Reading, UK*

- Designed and implemented a **SharePoint-integrated GIS Map Viewer** to enhance spatial data access and operational efficiency for a major energy provider.
- Developed **Silverlight-based Map Viewer** to visualize utility network infrastructure; improved asset visibility and real-time monitoring capabilities.
- **Enhanced positional accuracy** of gas network features using OS Master Map for UK clients; acted as **onsite coordinator**, improving data quality and stakeholder communication.
- Built **Bing Maps GPS vehicle tracker** prototype using real-time XML/TXT feeds, supporting logistics and field operations.
- Created thick and thin clients for **water network management**; designed **ETL workflows in FME** to load XML, GML, TXT, and CSV data into ArcSDE geodatabases.
- Upgraded **ArcMap extensions (v9.0 to 9.2)**, resolving backward compatibility and configuration issues.
- Developed and deployed **ArcGIS map services** and supported **ArcSDE database administration**.

- Collaborated with enterprise GIS architects and infrastructure teams to design scalable solutions; contributed to pre-sales proposals across the energy vertical.
- **Led a cross-functional team** of 6 developers, 2 testers, and 10 offshore vendor resources; implemented Agile delivery practices.
- Served on **solution architecture and code quality audit teams**; defined coding standards and conducted organization-wide reviews.
- Conducted internal **training sessions** for new hires on ArcGIS Desktop, GIS fundamentals, and utilities domain use cases.

**Avineon India Pvt. Ltd**, Hyderabad, India

**Feb 2004 - Feb 2007**

**GIS Analyst | .NET Developer**

- Designed and developed a custom data migration tool to convert data across multiple GIS formats (DWG, DGN, SHP, PGDB, and SDE) without FME, saving on licensing costs and improving flexibility.
- Built QA/QC feedback workflows enabling Data Analysts to capture issues, log feedback, and track resolution status in real time, streamlining communication between QA and production teams.
- Automated spatial data validation and geometric integrity checks, logging violations in a centralized error-tracking database—enhancing overall data quality and consistency.
- Developed the G-Packet Toolkit, a custom ArcMap extension that unified essential QA, editing, and reporting tools into a single interface, significantly boosting analyst productivity.
- Integrated Autodesk Map workflows with ArcMap to simplify dimension capture processes, improving accuracy and reducing manual effort during data creation and editing phases.

**Trigeo Image System Pvt. Ltd**, Hyderabad, India

**April 2001 - Feb 2004**

**CAD / GIS Engineer**

- Digitized stormwater pipeline networks using plat maps, survey drawings, and land base references, ensuring accurate and reliable infrastructure modeling for urban planning.
- Conducted comprehensive quality control and accuracy verification to ensure data integrity and alignment with engineering standards.
- Developed custom AML scripts to automate tasks such as annotation placement, layer clipping, and spatial alignment—reducing manual effort and improving production speed.
- Led and mentored a team of GIS analysts, providing day-to-day supervision, technical training, and performance feedback to deliver high-quality geospatial deliverables on schedule.

## EDUCATION

**Master of Science in Geography**

University of Madras, TN, India

## CERTIFICATIONS

- Masters in Data Science (Python | R | ML | Bigdata | Tableau | Power BI)
- Generative AI for Business Transformation from Purdue University | AWS Certified Solutions Architect – Associate
- PMP – Project Management Professional | ITIL Foundation | Scrum Master

## LEADERSHIP & AGILE METHODOLOGY

- Strong experience leading global teams with Agile methodologies, mentoring engineering managers and fostering leadership development.
- Champion of DevOps culture with a focus on high availability, security, and continuous delivery.
- Advanced knowledge of Agile frameworks such as SAFe and Scrum, with experience scaling agile practices across large organizations.