

Sai Srujan Simhadri

AI Solutions Architect | Enterprise AI Engineer | Full Stack AI Engineer

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PROFESSIONAL SUMMARY

AI systems engineer and data platform architect who builds enterprise AI platforms from concept to production. Experienced across machine learning, NLP, predictive modeling, semantic search, vector embeddings, recommendation systems and real-time data pipelines. Strong background in Python, SQL, FastAPI, PostgreSQL/pgvector, Azure, Snowflake and cloud architecture, with a track record of automating workflows, improving data accuracy, and shipping multi-tenant SaaS products end-to-end.

CORE SKILLS

AI & Machine Learning: NLP, predictive modeling, semantic search, vector embeddings, recommendation systems, forecasting, Random Forest, K-Means clustering, feature engineering, local LLMs

Backend & APIs: Python, FastAPI, REST APIs, SQLAlchemy, Node.js

Data & Cloud: SQL, PostgreSQL, pgvector, Snowflake, Azure, Azure Data Factory, ETL, DBT, data pipelines

Frontend: Next.js, TypeScript, React, Tailwind CSS

Platform & DevOps: Docker, CI/CD, multi-tenant SaaS architecture, cloud architecture

Analytics: Tableau, financial analytics, dashboards, root cause analysis

PROFESSIONAL EXPERIENCE

Systems Engineer & Data Platform Developer — VR IT Resources

Sterling, VA • Feb 2025 – Present

- Built large-scale SQL analytics pipelines processing 170,000+ records, improving data accuracy by 51%.
- Architected an AI recruiting intelligence platform with semantic matching, vector embeddings and ML candidate ranking at sub-second inference.
- Developed a conversational AI assistant using NLP knowledge retrieval to streamline internal service access.
- Automated enterprise workflows and data integration, saving 20+ hours per month of manual effort.

Operations & Analytics — DePaul University

Chicago, IL • Mar 2023 – Nov 2024

- Built SQL analytics pipelines spanning 15+ buildings and 1,000+ managed assets.
- Automated reporting workflows, delivering 40% faster reporting turnaround.
- Designed inventory tracking, resource allocation and vendor evaluation workflows.
- Mentored team members on analytics tooling and process.

Risk Analyst — Amazon Development Center

Hyderabad, India • Nov 2021 – Nov 2022

- Developed 30+ Tableau dashboards over 500,000+ event records for safety and operations.
- Built predictive ML classification models achieving 95% prediction accuracy for driver risk.
- Drove a 25% reduction in repeat safety violations through driver performance scoring and root cause analysis.
- Optimized Snowflake and SQL Server queries for a 20% latency reduction, saving ~25 hours per month.

Data Platform Engineer & ML Systems Developer — Crisp Croft

Hyderabad, India • Apr 2020 – Oct 2021

- Engineered ETL pipelines with Azure Data Factory, Azure Blob and Azure SQL, reducing latency by 25%.
- Built crop yield prediction models from weather and soil data using regression modeling.
- Developed restaurant demand prediction and inventory optimization using time-series forecasting.
- Implemented DBT transformations that improved database throughput by 35%.

SELECTED AI PRODUCTS

- **TalentPike — Enterprise AI Recruiting Platform:** multi-tenant AI ATS with resume parsing, semantic job matching, vector embeddings, explainable candidate ranking, interview intelligence, RBAC/JWT/audit logging and a local LLM (Ollama) on Azure (FastAPI, Next.js, PostgreSQL/pgvector).
- **AI Resume Intelligence Engine:** document-AI for PDF/DOCX parsing (OCR-ready), entity extraction with confidence scoring, resume-to-job semantic matching and HR-XML generation.
- **Trading AI Platform:** FastAPI /predict ensemble pipeline (yfinance, FRED, news sentiment), CALLS/PUTS decision engine, EDGAR XBRL fundamentals, forecasting, automated thesis reports, backtesting and scheduled retraining.
- **Conversational AI Assistant:** NLP-based service discovery, knowledge retrieval and document lookup on Azure to reduce call-center load.

TECHNICAL PROJECTS

- **Driver Safety AI:** K-Means clustering and Random Forest classification for driver risk profiling, alerts and preventive coaching.
- **Tesla vs GM Financial Analytics:** profitability, leverage, liquidity and efficiency ratio analysis framed as an investment thesis.
- **PeopleSoft Enterprise Recruiting:** eRecruit enhancements (PeopleCode, SQL) and a roadmap for an internal AI assistant with no external LLM dependency.
- **AI Outbound Sales & Marketing Platform:** lead management, AI outreach drafts, approval queue and campaign tracking on a CRM-ready architecture.
- **Crop Yield Prediction (Award-Winning B.Tech Capstone):** regression (linear/polynomial/SVR) with gradient-descent optimization in Python to predict agricultural yield; lm/glm analysis of Andhra Pradesh crop data.

EDUCATION

- M.S. in Business Analytics — DePaul University, Chicago, IL — Dec 2024
- B.Tech in Computer Science Engineering — Raghu Institute of Technology, India

HONORS & LEADERSHIP

- Dean's Award for Scholastic Excellence — DePaul University
- Case Competition Winner — Capstone Project, DePaul University
- Senator for International Students — Student Government Association, DePaul University

CERTIFICATIONS & PROFESSIONAL DEVELOPMENT

- Machine Learning & Predictive Modeling (self-directed specialization)
- Azure Cloud & Data Engineering (self-directed specialization)
- NLP & Semantic Search (self-directed specialization)

TOOLS & TECHNOLOGIES

Python, SQL, FastAPI, SQLAlchemy, PostgreSQL, pgvector, Snowflake, Azure, Azure Data Factory, ETL, DBT, Docker, CI/CD, REST APIs, Next.js, TypeScript, React, Tailwind CSS, scikit-learn, Pandas, Random Forest, K-Means, NLP, semantic search, vector embeddings, recommendation systems, forecasting, EDGAR ingestion, financial analytics, Tableau, PeopleSoft, PeopleCode, local LLMs / Ollama.