

Satish R Singh | Group-Lead Data Science | GenAI, AI & Strategy

⌚ Abu Dhabi – UAE

📞 +971 50 126 5789 | 📩 satishk.singh@outlook.com

🌐 linkedin.com/in/satish-r-singh | github.com/satish-r-singh

Lead Data Scientist with **15+ years of IT experience**, including **8+ years in data science**, specializing in **AI/ML** to solve real-world business problems. Expert in **building high-performing data science teams from scratch** and driving end-to-end development of data-driven solutions. A creative thinker with a unique background in arts, excelling at innovative problem-solving and effectively communicating data insights through compelling storytelling and visualization. Proven track record of delivering multimillion-dollar cost savings and revenue growth through GenAI, predictive modelling, NLP, and Computer Vision.

Upskilled aspiring data professionals at **Emirates Institute of Finance, Mindworx, Simplilearn, Vinsys, and The Knowledge Academy**, delivering comprehensive training on advanced ML and AI concepts to bridge the gap between theory and industry application.

TECHNICAL EXPERTISE

GenAI & Agentic Systems: Agentic Workflows (LangChain/LangGraph, CrewAI), Multi-Modal Models (Audio/Video/Image), RAG Pipelines, Fine-Tuning.

Computer Vision & NLP: YOLO, CNN, Mask R-CNN, OpenCV, BERT, Image Segmentation, HuggingFace.

Machine Learning: Predictive Modeling, Model Interpretability (SHAP/LIME), Time Series Forecasting (ARIMA/Prophet), Clustering, Scikit-Learn, TensorFlow, PyTorch, XGBoost, CatBoost, LightGBM.

MLOps, LLMOps & Cloud: AWS, Azure, LangSmith, Docker, Kubernetes, CI/CD, Git, Model Observability (MLflow/W&B)

EXPERIENCE

Elderberry Group (IgniteCPP, E-Centive, Beam, Mission Mobile)
Lead Data Scientist (Group Strategy & Architecture)

Abu Dhabi, UAE
Sep 2022-Present

- **Group Data Strategy & Leadership:** Serve as the Group Data Science Lead across **4 distinct product ventures(SalesTech, EdTech, FinTech)** , driving the AI roadmap and managing shared engineering resources to deliver scalable cross-platform solutions.
- Built the Data Science division from scratch, recruiting the core team and establishing MLOps best practices. Leading the transition toward **GenAI-first architectures** and agentic workflows.
- **Voice AI & Automation (E-Centive):** Led the "Buy vs. Build" evaluation for contact center automation(40+ agents). Developed an internal GenAI voice/chat POC to validate feasibility, ultimately selecting **VAPI** to optimize long-term maintenance costs and scalability.
- **RAG Knowledge Assistant(E-Centive/IgniteCPP):** Developed a GenAI search tool allowing call center agents to instantly query thousands of internal documents. **Impact:** Reduced **Time-to-Resolution (TTR)** by **20%** and accelerated new agent onboarding by replacing manual document searches.

- **GenAI Learning Ecosystem (E-Centive):** Architected a multi-modal content engine that ingests raw OEM assets (Images, PDFs, Videos) to automatically generate interactive training modules. **Impact:** One-stop Integrated learning platform, replacing external field training teams. Expected recurring annual revenue of **~USD 300,000 (ZAR 5M)**
- **LLM-Driven Data Transformation(E-Centive/IgniteCPP):** Integrated lightweight LLMs into ingestion pipelines to automatically sanitize and structure noisy, human-entered data. **Impact:** Automated a previously manual verification workflow, delivering immediate cost savings and reclaiming engineering hours.
- **Retail Store Segmentation(IgniteCPP):** Solved unfair sales evaluations by developing **clustering models (K-Means, DBSCAN)** to segment retail outlets. **Impact:** Enabled targeted marketing and fair peer-to-peer benchmarking.
- **Sales Gamification Engine(IgniteCPP):** Designed a dynamic, formula-based scoring optimization system to track daily sales performance. **Impact:** Increased workforce productivity and engagement through data-driven incentives, improving channel performance by **27%**.
- **Alternative Credit Scoring Engine (Beam/Mission Mobile):** Engineered a hybrid vetting system that moves beyond traditional bureau scores by ingesting alternative data (Telco logs, Deeds Office, Bank Statements). **Impact:** Improved lending decision accuracy for "thin-file" customers, expanding the addressable market while minimizing default risk.

Zensar (Client: Avis Fleet)

Senior Data Scientist

Johannesburg, South Africa

July 2021-Aug 2022

- **Used Car Price Prediction:** Built a multi-model valuation engine using Random Forest & XGBoost to estimate buy/sell prices with **96% R-square accuracy**. **Impact:** Increased average revenue per car by **10%** and reduced transaction cycle times by **15%**
- **Vehicle Residual Value Strategy:** Developed risk models using **Elastic Net & Lasso Regression** to optimize monthly premium calculations. **Impact:** Reduced financial losses from estimation errors by **12%** and boosted customer satisfaction by **7%**

Technical Product Owner / Manager - Data Science

Oct 2019-Jun 2021

- **AI Vehicle Damage Detection:** Launched a SaaS offering on **Azure** using **CNN, Mask R-CNN, and YOLO** to automate damage assessment from images. **Impact:** Reduced claim settlement lifecycle by 4 days and achieved annual savings of **~USD 200,000 (ZAR 3.5M)**
- **Insurance Fraud Detection:** Led the implementation of an ML fraud detection system (92% accuracy) in collaboration with AIG. **Impact:** Reduced fraudulent claims by **25%**, saving **~USD 1 Million (ZAR 15M)**.

Data Scientist

July 2018-Sep 2019

- **Car Rental Demand Forecast:** Built Time Series models (**ARIMA, STL**) to predict fleet demand across locations. **Impact:** Improved fleet utilization by **15%**, optimizing inventory stocking levels.
- **Fuel Card Fraud Detection:** Implemented anomaly detection (**Isolation Forest**) to flag irregular transaction patterns, achieving **88% detection accuracy**.

Previous Roles(Promoted Internally)

Mar 2014-Jun 2018

Roles: Data Engineer (2018), Technical Specialist (2016–2017), Senior Software Engineer (2014–2016)

- **Platform Modernization (AS/400 to Azure):** Co-led the massive migration of legacy leasing applications to **Microsoft Azure SaaS**, managing a team of 60+ consultants. This laid the cloud infrastructure foundation for future AI initiatives.
- **Predictive Maintenance POC:** Developed the organization's first Big Data POC using **Apache Spark**, proving the feasibility of sensor-based vehicle analysis.

GalaxE Solutions (Client: CVS Caremark)
Senior Software Engineer

Bangalore, India
Jan 2011-Mar 2014

- **Enterprise Platform Consolidation (Aetna to CVS):** Led the offshore migration of Aetna's pharmacy claims from Mainframe systems to the CVS RxClaim (AS/400) adjudication engine. **Impact:** Streamlined claims processing and ensured accurate billing by implementing complex "Buy Pricing" logic for millions of records.
- **Project Leadership:** Managed the project lifecycle from inception to delivery, coordinating between US stakeholders and the offshore development team to ensure zero-defect delivery.

IBM India (Client: CVS Caremark)
Associate System Engineer

Bangalore, India
Jul 2010-Jan 2011

- **RxClaim Engine Support:** Maintained the critical pharmacy claims adjudication engine, enhancing software modules to meet dynamic regulatory government updates and business requirements.

MENTORSHIP & THOUGHT LEADERSHIP

Corporate Trainer & Mentor **Hybrid, Remote**
2021-Present
Emirates Institute of Finance, Mindworx, Simplilearn, Vinsys, The Knowledge Academy

- **Executive Education & Upskilling:** Delivered comprehensive corporate training programs on **Data Science, AI/ML, and GenAI** to mid-to-senior level professionals.
- **Curriculum Delivery:** bridged the gap between academic theory and industry application by guiding cohorts through real-world capstone projects, covering topics from **AI Ethics** to **Advanced Deep Learning**.
- **Career Development:** Mentored aspiring data scientists on career pivots, portfolio building, and technical interview preparation, directly contributing to the growth of the regional data talent pool.

EDUCATION & PUBLICATIONS

Master of Science in Data Science **Liverpool John Moore's University, UK 2022- 2023**
Published Research: Main author of "Fake News Detection Using Explainable Artificial Intelligence", published by [Springer Nature \(Proceedings of DaSET 2024\)](#).

- **Focus:** Applied XAI (SHAP/LIME) and NLP techniques to enhance model transparency and trust in automated detection systems.

Executive PGP in Data Science **IIIT Bangalore, India 2021- 2022**
Bachelor of Engineering in Electronics & Communications **Manipal University, India 2006- 2010**

CERTIFICATION & AWARDS

- **100X Engineers:** Successfully completed the Applied Gen AI Cohort 4 by 100x Engineers
- **Cloud & Big Data:** Microsoft Certified: Azure Data Fundamentals (DP-900), Azure Fundamentals (AZ-900), Hortonworks Certified Hadoop Developer (HDP/CD).
- **Performance Awards:** Recipient of the "**Star of the Quarter**" (Africa Region) award twice (2016, 2017) and multiple Monthly Performance Awards at Avis Fleet and GalaxE Solutions.
- **Delivery Excellence:** Recognized for maintaining a **ZERO defect count** across 14 consecutive projects led from offshore.