

Amirthakatesh N

Summary		
Principal AI and Data Science professional with 7+ years of experience architecting and scaling AI systems across complex problem spaces. Strong expertise in applied machine learning, GenAI architectures, and agentic AI systems, with end-to-end ownership from modeling and evaluation to production deployment.		

Qualification	Institute	Year
MBA (pursuing)	Indian Institute of Management, Ahmedabad	2024-2026
PG (Data Science)	Indian Institute of Technology, Guwahati	2020-2021
B.Tech (CS)	Sastra University, Thanjavur	2014-2018

Work Experience (7.5 years)		
Xome		(15 Months)
Principal AI Engineer		Sept '24-Current
- Architected and productionized an end-to-end Auction Prediction System spanning foreclosure lifecycle stages across ~100K assets, integrating feature engineering, model training, and large-scale inference. - Designed VIP Buyer Profiling and Lookalike Modeling pipelines using advanced ML techniques to identify high-value customers and improve buyer engagement and conversion. - Architected CoreX AI Agent Platform, a microservices-based automation framework enabling ML- and rule-driven decision workflows with improved system reliability and operational throughput. - Owned AI/ML architecture and model lifecycle decisions, including data strategy, evaluation frameworks, and deployment patterns, while collaborating closely with engineering and business stakeholders.		
7Sages Pricing		(6 Months)
Co-Founder, Head of Data Science		April '24-Sept '24
Led data science and engineering efforts for a pricing optimization platform, owning solution design from concept to production, providing strategic thought leadership in AI/ML-driven pricing, aligning analytics with business ROI.		
Mr. Cooper Group (Xome)		(57 Months)
Senior Data Scientist		July '19-April '24
- Built and scaled Automated Valuation Models (AVMs) for ~150M properties using a mix of linear models, tree-based ensembles (Random Forest, Gradient Boosting), and neural networks. - Designed comparable-based learning systems using above models to learn attribute-level deltas between subject and comparable properties, reducing absolute median error by ~3%. - Developed binary and probabilistic auction outcome models (logistic regression, tree-based classifiers), achieving F1 score of 0.84 and improving auction sale rates by ~30% per cycle. - Implemented NLP pipelines using Named Entity Recognition (NER) and sequence models (LSTM/RNNs) to resolve schema heterogeneity across large, unstructured datasets, achieving ~93% mapping accuracy. - Built computer vision systems using CNNs and ResNet architectures for property interior quality assessment, improving classification accuracy by ~5%. - Developed 3D reconstruction and geometric alignment pipelines using LiDAR data, OpenGL, ICP, and RANSAC. - Designed and deployed large-scale ML pipelines for training, validation, and inference using Spark, Databricks, and Kubernetes in production environments. - Conducted applied research on valuation and predictive modeling, translating academic literature into production-ready systems; later contributed to early LLM-based QA automation to improve engineering productivity.		
Applied Data Finance		(9 Months)
Data Scientist		Sept '18-July '19
- Designed customer scoring and loan targeting models using XGBoost, improving loan conversion by ~4%. - Reduced loan delinquency by ~6% through improved risk segmentation and feature engineering.		
Zoho		(4 Months)
Member of Technical Staff		June '18-Sept '18
Developed patch management features for Windows & Mac OS, including scheduling and policy-based deployments.		

Additional Certifications	
2nd Place – IIM Ahmedabad IIMavericks Challenge 2025, competing among 75+ teams (₹3L prize). IEEE Research Publication (2018) – <i>Vision-based Driver Assistance System</i> (INDIACom).	

Additional Certifications		
Google	The Google Cloud Advanced Solutions Lab for Machine Learning, 5-week immersive ML training program along with Google experts.	2022
IIT Indore	Course on “Network Science and Multi-Agent Systems” from Indian Institute of Technology, Indore with grade of ‘Ex’(10/10).	2016

Interests / Extra-Curriculars	
Music	Was the flautist of college music team and won best band in FESTEMBER NIT-Trichy Festival.