

# Prathmesh Savale

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## Education

### The University of Texas at Austin

May 2023

*Master of Science, Business Analytics*, 3.7 GPA

**Coursework:** Advanced Machine Learning, Optimization, Deep learning, Unstructured Data Analytics

### University of Pune

May 2015

*Bachelor of Engineering, Computer Engineering*, First Class with Distinction, 3.8 GPA

**Coursework:** Database Management Systems, Data Structures and Algorithms, Object Oriented Programming

## Experience

### Visa Inc. - Staff Data Scientist, Austin, TX, US

February 2025–Present

- Led 6-person data science team to architect Graph RAG conversational AI for Level 1 agents, using cross-encoders for reranking to reduce case resolution from 12 minutes to 10 seconds, improving customer satisfaction by 55%
- Built knowledge article generation system using Leiden clustering to identify FAQs from case data, auto-generating support articles with LLM as a judge and RAGAs, reducing escalation rates by 20%
- Engineered hierarchical intent classification with entity-relation extraction for Neo4j graph database, enabling semantic search for RAG contextual reasoning and supporting 10K+ daily customer queries

### Walmart Global Tech - Senior Data Scientist, Austin, TX, US

October 2023–February 2025

- Led sales forecasting framework development at Sam's Club AI Labs for Merch Finance
- Designed constraint-based causal discovery framework for what-if scenario simulations, enhancing forecasting accuracy by identifying key causal factors affecting sales and inventory optimization
- Created model-agnostic "Explainer" tool assessing promotion, pricing, holidays, and inventory impact on sales using causality integration to optimize decision-making processes

### HP Inc. - Data Scientist, Austin, TX, US

May 2023–October 2023

- Devised customer cohorts using unsupervised learning algorithms to target top 5% users, expanding HP Instant Ink and Smart Advance subscriptions by 13% and generating \$400K revenue over 6 months
- Developed agentic conversational bot complementing KPI dashboards for automated CXO-level insights and reporting

### HP Inc. - Data Scientist, Bangalore, India

January 2021–June 2022

- Used Bayesian A/B testing on HP Smart App coach marks and UI elements to increase user retention rate by 8%
- Mentored 5 team members on LookML development and partnered with 3 cross-functional teams to deliver HP Smart App usage report incl. conversion funnel, engagement and retention to senior leadership

### Kiewit Corporation - Data Science Consultant, Bangalore, India

October 2018–Jan 2021

- Enhanced Buckskin Mine throughput using LSTM networks to anticipate Caterpillar haul truck breakdowns, using SHAP values for feature analysis, reducing downtime by 30% and saving \$200K annually
- Built entity resolution system using Word2Vec to match handwritten procurement notes with standardized SAP Ariba records, reducing fraudulent claims by 20%

### Mu Sigma Inc. - Decision Scientist, Bangalore, India

September 2015–October 2018

### Tesco (UK) - Bus One Forecast

November 2016–October 2018

- Devised time series ensemble to forecast sales across product categories with 98% accuracy
- Integrated regressors for store closures and holidays, improving accuracy by 5.6%

### Apple (US) - Repair Center Operations and Analytics

September 2015–November 2016

- Created tree-based ensemble to predict device failures, achieving 3% reduction in dead on arrival rates
- Proposed cascading classifiers for rare class prediction, minimizing false positives by 15%

## Skills

**Programming:** Python, PySpark, R, SQL, LookML, Bash

**Computational and GenAI frameworks:** numpy, pandas, tidy, Scikit-learn, Statsmodels, Keras, LangGraph, RAGAs

**Statistical Analysis:** Regression, Classification, Bagging, Boosting, Ensemble, Time Series Analysis, Hypothesis testing, Neural Networks, A/B testing, Forecasting, LLM, GenAI, Optimization, RAG, GraphRAG, Causal Inference, Clustering

**Tools and deployment:** Docker, DataBricks, Git, Looker, Airflow, AWS, Jenkins, JIRA, Neo4j