

Chandrabhas Reddy Addanki

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Professional Summary

Data Scientist with 5+ years of experience building and deploying production-grade machine learning and generative AI systems in retail environments. Owner of a flagship propensity model scoring approximately 35M customers weekly, and builder of LLM pipelines operating over multi-million-record catalogs. Specialized in experimentation, causal analysis, personalization modeling, and LLM-powered decision-support systems (RAG, NL-to-SQL, agentic workflows), with a track record of translating business problems into scalable pipelines that measurably improve customer targeting, retention, and revenue.

Skills & Technologies

Programming: Python (pandas, scikit-learn), R, SQL, TypeScript, Swift

Machine Learning & Experimentation: XGBoost, Gradient Boosting, Regression, Feature Engineering, Hyperparameter Tuning, Model Calibration, A/B Testing, Uplift Modeling, Causal Impact Analysis

Generative AI & LLMs: RAG, Agentic & Multi-Agent Systems, LangChain, NL-to-SQL, Vector Embeddings, Vertex AI

Cloud, Data & MLOps: GCP (BigQuery, GCS, Cloud Run), AWS (SageMaker, S3, Redshift), Snowflake, CI/CD

Professional Experience

Senior Data Scientist, *Academy Sports + Outdoors*, Katy, TX

Mar 2023 – Present

- Built and own a flagship **channel-migration propensity model** scoring **approximately 35M customers weekly** in BigQuery, achieving **0.91 test AUC** and **12.1x lift** in the top-5% decile; engineered the production pipeline behind it: retraining orchestrator, base-rate-relative quality gates, artifact versioning, and failure alerting.
- Architected an **enterprise Customer 360 platform** with third-party identity resolution and cohort/channel analytics (LTV, recency, discount rate, contactability across multi-channel), powering **personalization and targeting models** validated through **A/B testing and uplift modeling**.
- Refactored the **Board of Directors customer analytics report** into a stored procedure spanning six time windows, **cutting runtime from 30+ minutes to about 2 minutes (a 93% reduction)** through upfront filtering and cross-join restructuring.
- Built a **generative AI portfolio** on **Vertex AI and LangChain** spanning **product catalog data enrichment, customer-feedback NLP analysis** (sentiment and theme extraction), **RAG-based internal knowledge search, NL-to-SQL generation**, and **multi-agent orchestration** systems.
- Built and validated **LightGBM + OLS ensemble forecasting** and **K-Means clustering** models for retail real estate analytics, including a **326-store customer archetype segmentation** and a **revenue/NPV forecasting pipeline** across **42K+ candidate sites**, informing **\$100M+ investment decisions** and C-level (EVP) merchandising strategy.
- Additional propensity, lookalike, and likelihood models in **Python and R**, built on reusable, modular pipelines for rapid iteration and consistent model governance.

Data Analyst, *Stuart School of Business, Illinois Tech*, Chicago, IL

Sept 2021 – Dec 2022

- Built and maintained **5+ interactive Power BI dashboards** tracking academic KPIs, improving planning accuracy and cutting advising errors by **30%**.
- Analyzed **100K+ student records** via **SQL** to surface key performance trends, driving a **12%** improvement in course registration processes.
- Mentored **3 junior analysts**, on SQL and reporting practices, lifting team efficiency and cutting delivery timelines by **25%**.

Independent Projects

CueLens: Real-Time AI Interview Copilot

June 2026

- Built a real-time desktop copilot in **TypeScript** integrating **Whisper STT** with an LLM orchestration layer, engineering a layered runtime prompt system and resolving a dual-response race condition between manual-trigger and audio paths.

Voice Diary: AI-Powered iOS Journaling Application

Feb 2026

- Developed a production-ready, Apple-native voice journaling app using **SwiftUI, SwiftData, and CloudKit** on a local-first architecture, with a **Whisper-via-Firebase** transcription pipeline and **semantic search** over entries using vector embeddings and cosine similarity, secured with Face ID/Touch ID locking.

Research Experience

Led a team of four on qualitative data analysis research, resulting in **three publications** in international peer-reviewed journals: a [hyperspectral image clustering](#) study identifying K-means as the top-performer at **89.27% cluster-parity efficiency**, a low-cost [real-time ECG signal analysis pipeline](#) achieving **76–84% accuracy** for at-home health monitoring under \$20 per unit, and a secure [EVM voting data model](#) using variable key lengths and hashing techniques for an added layer of encryption.

Education

University of the Cumberlands, Williamsburg, KY

Jan 2026 – Present

Ph.D. in Information Technology (Artificial Intelligence Emphasis), In Progress

Illinois Institute of Technology, Chicago, IL

Aug 2021 – Dec 2022

Master of Computer Science

GPA: 3.8