NARAMREDDY CHARAN KUMAR REDDY

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PROFESSIONAL SUMMARY

3rd-year Computer Science student specializing in AI and Machine Learning with a focus on building end-to-end data pipelines, predictive modeling, and scalable systems. Experienced in developing recommendation architectures using deep learning and vector index search, and tuning tree-based classifiers using hyperparameter optimization. Strong foundation in Python OOP, SQL, and data separation methodologies for production-oriented machine learning.

TECHNICAL SKILLS

Machine Learning:	XGBoost, LightGBM, Random Forest, Logistic Regression, Scikit-Learn, Optuna.
Deep Learning & GenAI:	PyTorch, Neural Collaborative Filtering, Vector Embeddings, FAISS Similarity Search, Prompt Engineering.
Data Intelligence:	Pandas, NumPy, Feature Engineering, KNNImputer, Imbalance Handling, RobustScaler.
Engineering Core:	Python 3 (Advanced OOP, Data Structures), SQL (Schema Design, SQLAlchemy), Git Workflow, BeautifulSoup.

ENGINEERING PROJECTS

Walmart Store Weekly Sales Forecasting | ***Python, Scikit-Learn, XGBoost, LightGBM, Pandas*** github.com/NaramCharan/Walmart-Store-Weekly-Sales-Forecasting

- Engineered a global multi-series forecasting pipeline predicting weekly sales across multiple store-department combinations, achieving 95.55% validation R^2 using an optimized LightGBM Regressor.
- Built a custom recursive walk-forward inference system from scratch to dynamically project rolling and lag features over future validation horizons where actual sales numbers are missing.
- Eliminated critical temporal data leakage by splitting data before feature extraction and computing lags/rolling stats strictly within each partition, ensuring valid model validation.

E-Commerce Customer Churn Prediction | ***Python, Scikit-Learn, XGBoost, PyTorch*** github.com/NaramCharan/ecommerce-customer-churn-prediction

- Engineered an end-to-end classification pipeline using ColumnTransformer with hybrid KNN/Simple value imputation to clean, scale, and encode customer data while strictly preventing data leakage.
- Tuned tree classifiers using Optuna with 10-fold Stratified Cross-Validation, achieving 98.28% accuracy and 94.74% F1-score on the final selected XGBoost production model.

Neural Collaborative Filtering Architecture | ***PyTorch, FAISS, Python*** github.com/NaramCharan/Collaborative_Filtering_Recommendation_system

- Built a custom recommendation engine using PyTorch, training 32-dimensional latent embedding vectors on sparse user-item interaction datasets with L2 regularization.
- Integrated Meta's FAISS library to index item embedding vectors, enabling sub-10ms similarity search queries for real-time recommendations.

Book Data Scraping & Database Pipeline | ***BeautifulSoup, SQLAlchemy, SQLite, Pandas*** github.com/NaramCharan/Book-webscrapper

- Built an automated multi-page scraper using BeautifulSoup and SQLAlchemy ORM, extracting structured data (title, price, rating, availability, description, URL) for 980+ books in under 30 minutes.
- Designed a relational SQLite database schema and exported clean CSV datasets ready for downstream machine learning applications, replacing days of manual collection.

EDUCATION

B.Tech in Computer Science Engineering (AI & Machine Learning) — 3rd Year **Graduation: May 2028**
GD Goenka University — Gurugram, India Current CGPA: **8.98 / 10.0**

CERTIFICATIONS

- Claude Code: A Highly Agentic Coding Assistant – DeepLearning.AI, Anthropic (July 2026)
- Machine Learning Specialization – DeepLearning.AI, Stanford University (May 2026)
- Databases and SQL for Data Science with Python – IBM, Coursera (Nov 2025)
- Python for Everybody Specialization – University of Michigan, Coursera (March 2025)
- Prompt Engineering & Generative AI – Google, Vanderbilt University (March 2025)