

# Kristi Esta

San Antonio, TX

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## SUMMARY

Data Engineering Leader with over 20 years of experience building scalable data solutions and guiding cross-functional teams. Transitioning into AI/ML with advanced training in machine learning, deep learning, and model interpretability. Proficient in Python, SQL, and machine learning frameworks, with a strong focus on transforming complex challenges into data-driven insights. Demonstrated ability to collaborate with stakeholders to drive strategic decisions and optimize operational efficiencies.

## TECHNICAL SKILLS

- **Programming & Tools:** Python, SQL, Spark, Git, pandas, NumPy
- **Machine Learning & Analysis:** Scikit-learn, TensorFlow, Keras, Classification, Regression, Ensemble Methods, Neural Networks, Model Tuning, Statistical Principles, Computer Vision
- **Data Engineering & Professional Attributes:** Data pipelines, ETL, API development, cloud data platforms (AWS S3), Curiosity, SQL/NoSQL Relational and Columnar Database Platforms

## PROFESSIONAL EXPERIENCE

### USAA | *Data Engineer*

May 2006 - Feb 2024

- Designed, built, and maintained large-scale data pipelines for the bank business unit, facilitating real-time data ingestion for operational analytics.
- Supported data science initiatives with robust ETL frameworks while leveraging Python and SQL to prepare and integrate large datasets.
- Collaborated with data scientists and analysts to operationalize predictive models using machine learning frameworks like scikit-learn, translating business challenges into analytical insights.
- Led backend development and system integrations for financial systems, contributing to decision-modeling projects and strategic data-driven initiatives.
- Implemented scalable APIs and developed interactive dashboards using data visualization tools, empowering non-technical stakeholders to make informed decisions.
- Contributed early to enterprise data modernization efforts, working within agile teams to address unaddressed business challenges and propose improved solutions.

## EDUCATION & CERTIFICATIONS

### University of Texas at Austin

Oct 2025

*Post Graduate Program, Artificial Intelligence & Machine Learning*

- **Coursework:** Supervised & unsupervised learning, data science, deep learning, model tuning, ensemble methods, Gen AI, fairness & explainability, Computer Vision

### University of Louisiana at Monroe

Dec 2005

*B.S., Computer Science*

## RELEVANT PROJECTS

### Clinical Question Answering – RAG Project | *Merck Manual RAG QA*

2025

- Built retrieval-augmented generation pipeline with careful chunking and retriever tuning.
- Evaluated groundedness and relevance; designed rubric and improved retrieval quality.
- Delivered a single high-quality response per prompt with prompt-engineering constraints.

### Neural Network Modeling Project | *Renewable Wind Forecasting*

2025

- Developed and compared neural network architectures (baseline vs tuned models) for wind energy forecasting.
- Applied normalization, label encoding, and loss/accuracy visualizations.
- Highlighted model performance trade-offs and metrics-driven decision support.

### University of Texas - AI/ML Capstone | *Visa Approval Prediction*

2025

- Predicted visa approval outcomes using classification models (Random Forest, XGBoost, Logistic Regression).
- Performed EDA, preprocessing, oversampling/undersampling, and hyperparameter tuning.
- Delivered actionable insights for optimizing approval processes.
- Emphasized fairness, precision-recall balance, and business interpretability.

### UT Austin Postgraduate Program in AI/ML | *AI/ML Coursework Portfolio*

Present

- Topics: Supervised & unsupervised learning, data science, deep learning, model tuning, ensemble methods, Gen AI, RAG, Prompt Engineering, Computer Vision, fairness & explainability.