SRILEKHA TIRUMALA VINJAMOORI

srilekha.tv@gmail.com | (682) 407-7974 | linkedin.com/in/srilekha-tirumala-vinjamoori | srilekhatv-portfolio.vercel.app

TECHNICAL SKILLS

Analytics & Visualization: Python, R, SQL, Excel, Tableau, Power BI

ML Frameworks & Libraries: Scikit-Learn, XGBoost, TensorFlow, PyTorch, Pandas, NumPy, Streamlit, Matplotlib, SHAP, LIME, Alibi, Dice-ML, InterpretML, AIF360, Fairlearn

Cloud & Deployment: EC2, S3, AWS Lambda, Kubernetes, Docker, Streamlit Cloud

Data Processing: Feature Engineering, Data Cleaning, Categorical Encoding, Scaling, Normalization, PCA

Databases & ETL: SQL Server, Oracle, Data Warehousing, ETL Pipelines

EDUCATION

University of Texas at Arlington, MS in Information Systems　　　　　　　　　　　　　　Aug 2023 – May 2025
- **Coursework:** Data Mining, Data Visualization, AI Ethics, Explainability and Interpretability, Business Process Improvement, System Analysis and Design, Database Management and Optimization, Project Management, Cloud Computing

SRM University, BTech in Electronics and Communication Engineering　　　　　　　　　　Jun 2016 – May 2020

PROFESSIONAL EXPERIENCE

Graduate Teaching Assistant, University of Texas at Arlington – Arlington, TX　　　　　Jan 2024 – Present
- Designed SQL-based data analysis assignments, enhancing students' ability to extract insights from real-world datasets.

Digital and Systems Analyst, Shree Venkateshwara Foams LLP – Hyderabad, India　　　Oct 2022 – May 2023
- Developed interactive dashboards in **Power BI**, leading to a 20% increase in sales insights and performance tracking.
- Provided data-driven recommendations to optimize marketing strategies, enhancing customer engagement by 15%.

Analyst, Wipro Limited – Hyderabad, India　　　　　　　　　　　　　　　　　　　　Sept 2020 – Aug 2022
- Led a team of 6 to test 120 migrated servers in 10 days, ensuring 100% compliance through strategic execution.
- Extracted & analyzed defect reports in **Proton**, cutting issue resolution time by 30%.
- Developed a **ServiceNow** dashboard, improving request tracking and reducing response time by 40%.

PROJECTS

AutoNexus - Automated Machine Learning　　　　　　　　　　　　　　　　　　　　　March 2025 - Present
- Built a dynamic web-based tool to streamline preprocessing workflows for data science projects, including automated missing value imputation, scaling, encoding, and datetime handling.
- Enabled rapid exploratory data analysis through interactive visualizations (histograms, boxplots, scatter plots, pairplots) to assist in identifying patterns, trends, and correlations.

  Integrated exportable cleaned datasets for downstream modeling and analysis, reducing manual data prep time by over 70%.
- Applied feature engineering techniques including categorical breakdown, correlation detection, and datetime feature extraction to optimize data quality for ML pipelines

Loan Default Prediction - Interpretability and Explainability　　　　　　　　　　　　　April 2025
- Built an end-to-end loan default prediction model using Random Forest and SMOTE, addressing class imbalance and ensuring model robustness on financial risk data.
- Implemented model interpretability using SHAP, LIME, and DiCE-ML to generate global insights, local explanations, and counterfactual examples for actionable decisions.
- Conducted fairness analysis with Fairlearn and AIF360, evaluating metrics like demographic parity and equalized odds across protected features (e.g., income, location).
- Created ALE and PDP visualizations to quantify nonlinear feature influence, supporting transparent model reporting and ethical compliance for stakeholder review.

Fraud Detection in Job Postings　　　　　　　　　　　　　　　　　　　　　　　　　　Dec 2024
- Built and optimized fraud detection models using **Exact Bayes** and **Bernoulli Naive Bayes**, achieving 96.45% accuracy through advanced probabilistic modeling.
- **Reduced false positives** by 87.5% through precision tuning and threshold-based classification, improving fraud detection reliability.
- Engineered key features from text and categorical data, applying vectorization **(CountVectorizer)**, categorical encoding, and salary transformation, enhancing model interpretability. data preprocessing techniques, handling missing values, resampling for class imbalance **(SMOTE)**, and numerical transformations for improved model generalization.
- Evaluated model performance using **precision-recall curves, F1-score optimization, and cross-validation**, ensuring robust fraud detection with minimal bias.

Advocate Diary Management & Performance Analytics Dashboard　　　　　　　　　　　　July 2024
- Built a **Power BI** dashboard by extracting advocate case data from Microsoft SQL Server, enabling real-time tracking of case outcomes and advocate performance.
- Optimized data visualization and reporting, enhancing efficiency in monitoring advocate activity and improving legal case management.

Universal Furniture Outlet – Database Design and Optimization   Dec 2023

- Developed a third-normal form **Oracle database** to streamline customer orders, delivery logistics, and inventory management.
- Optimized SQL queries and indexing strategies, improving database performance by 25% and reducing query execution time.
- Designed **Tableau** dashboards for real-time tracking of order fulfillment and inventory trends, enhancing decision-making and reducing stock shortages.

Wines Sales Prediction   Dec 2023

- Engineered a predictive pipeline using Random Forest and XGBoost, achieving R^2 of 0.89 and reducing RMSE by 15% over baseline Linear Regression.
- Tuned hyperparameters and evaluated models across multiple splits to ensure consistency in predicting household wine spending.
- Used SHAP explainability to rank key drivers enabling model transparency and business-aligned insights.

CERTIFICATIONS

Google Data Analytics Certification
AWS Solutions Architect Associate (In Progress)