CHAITANYA TILAK KAMINENI

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PROFESSIONAL SUMMARY

Data Scientist with hands-on experience developing machine learning models, large-scale data pipelines, and anomaly-detection systems using Python, SQL, Azure, and BigQuery. Skilled in EDA, feature engineering, hypothesis testing, cross-validation, and A/B experimentation to build reliable, interpretable models. Adept at working with complex, messy datasets and translating analytical findings into actionable insights that drive decisions across finance, utilities, and operational environments.

EDUCATION

Master's Degree in Business Analytics (STEM) Aug 2023 – Dec 2024

Iowa State University, Ames

Bachelor of Technology in Data Science and AI Aug 2019 – Jun 2023

ICFAI Foundation for Higher Education, India

SKILLS

Programming & Databases: Python (Pandas, NumPy, Scikit-learn, TensorFlow, Keras), SQL (PostgreSQL, BigQuery), R.

Machine Learning & Statistical Methods: Supervised & Unsupervised Learning, Statistical Modeling, Hypothesis Testing, Regression Analysis, Feature Engineering, Cross-Validation, Time-Series Forecasting, A/B Testing, Anomaly Detection, Recommendation Systems.

Cloud & Data Engineering: Azure (Data Factory, Azure SQL), Google Cloud (BigQuery), ETL/ELT Pipelines, Data Modeling.

Visualization & BI Tools: Power BI, Tableau, Advanced Excel, KPI Dashboards, Data Storytelling, Model Explainability (SHAP).

PROFESSIONAL EXPERIENCE

Business Analyst , Zen Galaxy Capital LLC Feb 2025 - Present

- Analyzed U.S. modular housing and tiny-home markets to surface key growth trends, emerging construction technologies, and regulatory shifts shaping long-term investment strategy.
- Evaluated regional demand across U.S. states by comparing modular adoption rates, permitting requirements, and market maturity to identify high-potential investment regions.
- Assessed Airbnb booking trends for tiny homes and glamping sites, using Power BI to pinpoint the top 10 states based on occupancy and revenue performance.

Web Data Engineering Intern, Wiki Kids Pvt. Ltd, Hyderabad Jan 2023 – Jun 2023

- Standardized and structured 500+ educational content items into clean HTML/SQL formats, improving data quality and reducing downstream content-prep time by 40%.
- Developed taxonomy-driven tagging workflows and prepared structured datasets for NLP, question-tagging, and content-classification, increasing dataset usability for ML applications by 25%.
- Validated and enhanced frontend content delivery by rebuilding pop-ups, editing layouts, and performing QA checks across HTML/CSS/Ionic pages, resolving 100% of rendering and formatting inconsistencies before deployment.

ACADEMIC PROJECTS

Anomaly Detection in Digital Meters — MidAmerican Energy (Capstone)

- Built anomaly-detection models (Isolation Forest, Autoencoder, LOF) using 1 year of smart-meter, weather, and time-series features to classify irregular consumption patterns.
- Engineered temporal, seasonal, and weather-based signals (hour, weekday, month, rolling stats, temperature trends) that boosted accuracy (F1 up to 0.96) and uncovered seasonal anomaly cycles.
- Implemented a hybrid ML + statistical framework (STL, Z-score, rolling statistics) that improved detection of billing discrepancies, equipment faults, and weather-driven load spikes.

Transaction Fraud Detection

- Processed and analyzed 284K+ transactions using data cleaning, normalization, time-aware splits, and feature engineering to strengthen fraud-signal quality.
- Evaluated Logistic Regression, Random Forest, XGBoost, and Isolation Forest on highly imbalanced data, improving recall via class weighting, stratified sampling, and cost-sensitive methods.
- Created a modular ML pipeline for reproducible training and inference and designed Power BI reports highlighting fraud patterns, model predictions, and high-risk segments.

Restaurant Market Expansion Analytics

- Designed Azure Data Factory workflows to ingest, clean, and aggregate 840K+ TripAdvisor records, producing structured datasets for cuisine, pricing, ratings, and location analysis.
- Developed Tableau dashboards identifying underserved cuisines, oversaturated cities, and regional density trends using aggregated rating, volume, and pricing metrics.
- Delivered prescriptive expansion recommendations by identifying high-potential countries (e.g., Northern Ireland, Slovakia, Finland) and analyzing pricing patterns and competitive gaps.