SASI KISHORE VARMA

Data Scientist | Data Analyst | Machine Learning Engineer

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EDUCATION

- **Aditya College Of Engineering** - B.Tech - Bachelor of Technology in Mechanical Engineering
- **365 Data Science** - Foundation Degree in Data Science Completed in Python, Machine Learning, Mathematics & Statistics, Deep Learning, Data Analytics, SQL, NLP

WORK EXPERIENCE

LENDING CLUB COMPANY | Kaggle Competition Contributor | Jul 2024 – Sep 2024

Developed an AI-powered credit risk model compliant with Basel accords to predict borrower default risks and calculate exposure loss.

- PD Model: Implemented Logistic Regression achieving AUC of 0.684
- LGD Model: Applied Beta Regression (AUC: 0.640) and fine-tuned with Linear Regression (Accuracy: 0.777)
- EAD Model: Built a Linear Regression model with an accuracy of 0.658
- Exposure Loss Calculation: Integrated PD, LGD, and EAD models to compute Expected Loss (EL)
- Model Validation: Ensured robustness through Population Stability Index (PSI) checks
- Technologies: Python, Jupyter Notebook, Logistic Regression, Beta Regression, Linear Regression, Weight of Evidence (WoE), PSI Validation, GitHub
- 🔗GitHub Repository: Credit Risk Modeling Project

DMART Physical Store | Customer Analytics & Pricing Elasticity Modeling | Sep 2024 - Dec 2024

Developed a comprehensive customer analytics solution to segment customers, analyze purchasing behavior, and predict price elasticity for enhanced pricing strategies

- Achieved a 15% improvement in marketing campaign targeting through actionable insights from customer segmentation
- Enhanced prediction accuracy by 20% via model optimization techniques
- Customer Segmentation: Applied K-means clustering and Principal Component Analysis (PCA) to group customers effectively based on purchasing behavior and reduce dimensional complexity
- Elasticity Analysis: Modeled price elasticity to assess customer sensitivity to price changes across segments.
- Purchase Analytics: Conducted purchase probability and quantity elasticity analysis, identifying key demand forecasting drivers
- Deep Learning: Built a TensorFlow 2.0 neural network for accurate prediction of purchasing behavior.
- Exploratory Data Analysis: Visualized purchasing habits and pricing trends for improved decision-making
- Technologies: Python, TensorFlow 2.0, K-means Clustering, PCA, Seaborn, Scikit-learn, Price Elasticity Modeling
- 🔗GitHub Repository : Customer Analytics Project

Customer Segmentation & Personalized Recommendation System

- Designed and implemented movie recommendation application in 4-person team using Python in 3-day hackathon
- Enabled users to be recommended movies based on 50+ data points; awarded most innovative project by Google engineer
- Developed a customer segmentation and recommendation system to enhance the online retail shopping experience using K-means clustering and personalized recommendation algorithms.
- Engineered advanced features, including Recency, Frequency, and Monetary (RFM) metrics, product diversity, and behavioral patterns, to capture customer purchasing trends.
- Conducted dimensionality reduction using PCA, improving clustering accuracy and visualization through top principal components.
- Implemented a robust outlier detection strategy, reserving niche customers (5%) in a dedicated dataset for tailored

recommendations.
- Leveraged a powerful tech stack, including **Python, Pandas, NumPy, Scikit-learn, Plotly, and Seaborn**, to deliver actionable insights and personalized solutions.
- 🔗 **GitHub Repository:** Recommendation system

Passions

- **Artificial Intelligence** : Always fascinated by the possibilities of AI and machine learning
- **Continuous Learning**: Participate in Kaggle competitions and write Medium blogs on deep learning and generative AI.
- **Data Storytelling**: Transform complex data into actionable insights with Tableau dashboards and clear visualizations.

Domain knowledge

- Finance & Banking: Risk modeling and exposure loss prediction
- Retail & Ecommerce: Customer analytics and behavioral modeling
- Marketing Analytics: Customer segmentation and demand forecasting
- Healthcare Analytics: Data-driven healthcare solutions
- NLP: Text analysis and language understanding

ADDITIONAL

- **Programming Languages:** Python, SQL
- **Data Visualization:** Matplotlib, Seaborn, Plotly, Power BI, Tableau
- **Data Science & ML:** Scikit-learn, TensorFlow, Keras, NLP, Recommendation Systems
- **Advanced Analytics:** Clustering, Predictive Modeling, A/B Testing, Statistical Analysis
- **Data Engineering:** ETL Pipelines, Data Modeling, Data Cleaning & Transformation
- **Tools:** Git, GitHub, Docker
- Problem-solving
- Communication
- Adaptability
- Leadership

LANGUAGES

- English, Telugu, Hindi

CERTIFICATIONS & TRAINING

- Data Science Certifications (365 Data Science, Udemy)

🔗 **Profiles:**

- Medium
- Kaggle
- GitHub
- LinkedIn