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EDUCATION

University of Cincinnati, Carl H. Lindner College of Business, Cincinnati, Ohio — August 2020
Master of Science in Business Analytics — GPA: 3.96/4
The LNM Institute of Information Technology, Jaipur, India — May 2014
Bachelor of Technology, Electronics and Communication

EXPERIENCE

FedEx Services [Tech stack: Data Mining, PYSPARK, ML, Databricks, BTYD, LGBM, MLflow, ADF, Terraforms, Agile]
Sr Data Scientist – Marketing — **Dec 2022 – Present**
Key Projects Include:
Proactive Retention Model

- Enhanced BTYD code by building covariates expansion extension to improve model outputs
- Used MLops using ADF, and terraforms to build pipelines in production for the model to run at a regular cadence automatically
- Added Mlflow experiments to track model's performances(precision), and revenue and volume trends
- Usecase resulted in a net increment in revenue of more than 150M in 2 years.

Customer Lifetime Model

- Built the New customer model for accounts created in the last 6 months
- Build the entire product end to end (including pipelines, terraforms)
- Added Triggers and alarms to ensure to track model's performances and created a dashboard to print the same every month.

Circle K [Tech stack: Data Mining, PYSPARK, ML, Databricks, Time Series, Clustering, UCM, xgBoost, Collaborative filtering]
Data Scientist — Oct 2020-Nov 22
Key Projects Include:
Localized Pricing Model

- Developed elasticity and time series UCM model to implement localized pricing project across 21 Business Units
- Developed nonlinear optimization process for product pricing
- Created metrics to measure performance of the process based on expected vs observed lifts

Assortment Model

- Developed recommendation engine to specify what each store should add and drop from its shelves

AIG Analytics and Services [Tech stack: Data Mining, MSSQL, PYSPARK, ML, Random Forest, LGB, SVM, TF-IDF, Python, Snowflake, Tableau, KPI's, Stakeholder's Reporting, A/B testing]
Business Analyst (eq Data Scientist) — July 2015 - October 2018
Key Projects Include:
Policy Churn Model

- Analyzing the changing attributes in a policy to figure out the features impacting the churn of a policy.
- Implemented an SVM model to predict the probability of a policy cancellation prior to the expiration date by applying TF-IDF on the various attributes of an insurance policy and analyzing the reasons for cancellation
- The final model had an accuracy, precision, recall and F-score all exceeding 95%

Propensity Model

- Identification of the potential customers having the highest probability to be converted using a gradient boosting model
- Using the same model to identify the most significant factors leading to customer adoption of a specified insurance product and performing A/B testing to prove the same
- Analyzed the future strategy based on the model insights resulting in AIG cutting down on marketing cost by 10%

Fraud Detection Model

- Identified fraudulent transaction patterns using Random Forest algorithm by training on historical claims data
- Added value to the model by reducing false positive rate, and integrating the data from the global CLUE search DB
- Helped AIG to increase the efficiency of the resource allocation in the Claims Department by 20%

PROJECTS

Optical Digit Recognition [Tech stack: Computer Vision, SVM, CNN, Python, Keras, tkinter]

- Develop a Handwritten Digits classification Model to classify a given image of a handwritten digit into one of 10 classes representing integer values from 0 to 9, inclusively
- Approach – Achieved 99.42% accuracy by performing Hyper-parameter selection and tuning for Dense Networks on CNN architecture, and then created an API using tkinter in Python for the same

Bitcoin Price Prediction System [Tech stack: Time series forecasting, R, RShiny]

- Approach – Performed EDA to get insights and differencing orders; developed a seasonal ARIMA model to forecast Bitcoin prices