Piyush Verma

■ (513)-658-6482 ■ vermaph@mail.uc.edu ■ Homepage

EDUCATION

University of Cincinnati, Carl H Lindner School of Business, Cincinnati, Ohio **August 2018**
Master of Science in Business Analytics | GPA: 3.7/4

IIT Kharagpur, India
Master of Technology in Metallurgical Engineering | GPA: 8.1/10.0 **May 2014**

Bachelor of Technology in Metallurgical Engineering | GPA 7.6/10.0 **May 2013**

SKILLS & CERTIFICATIONS

Machine Learning: Linear and Logistic Regression, LDA, K Nearest Neighbor, Cross-Validation, Lasso and Ridge Regression, Decision Trees, Random Forest, Gradient Boosting, Support Vector Machine, PCA, K means clustering, Hierarchical clustering, Neural Networks, A/B Testing, Optimization
Libraries: ggplot2, caret, dplyr, tidyr, pandas, numpy, scikit-learn, plotly
Software: R, SQL, Python, SAS, VBA, RShiny, Apache Spark, Tableau, GitHub, Arena, , MS Excel, Hive
Certificate: Data Science Certificate , a 10-course specialization by John Hopkins University on Coursera

EXPERIENCE

Quantium Analytics **July 2014 – April 2017**

Loyalty Analyst (Retail Team)

Loyalty Rewards Program

- Analyzed extensively the data collected from the loyalty card transactions done by supermarket shoppers
- Devised, maintained and delivered to executives an excel based customer health dashboard with 150+ product metrics to identify gaps and profitable channels in the ongoing loyalty rewards program
- Built a customer propensity model to predict whether a customer is going to redeem a reward coupon
- Delivered Customer Churn analysis to understand impact of campaigns on customer shopping behavior
- Moved to Sydney Australia as a **Subject Matter Expert** (2016)
- Supported with data knowledge and led a team of MicroStrategy software developers and client's Business Intelligence team to deploy the Quantium Solution in-house (Sydney, Australia)

Customer Segmentation

- Performed customer segmentation based on customers' shopping pattern using clustering, customer value and share of wallet models
- Programmed stored procedures in SQL creating reproducible code pipelines to refresh segments weekly

Results

- Chain of insights led client to revamp its $500 million loyalty rewards program and introduced a 0.5% base reward earn rate on every loyalty card linked transaction for every loyalty customer
- Revamping program improved scanning of loyalty cards by 5% (~450,000 more linked transactions)
- Reported a data discrepancy of weekly sales worth $40 million missing from the client's database

Competitive Intelligence Analyst (Insurance Team)

- Applied lasso regression to deconstruct competitor's insurance pricing structure to evaluate client's competitiveness for different customer segments (customers' age, claim history, address, driving experience, address)
- Automated using VBA quality assurance checks and modified the excel tool for other insurance products

ACADEMIC PROJECTS

- **Customer Segmentation for a retail supermarket**: (Customer Value Model, K-medoids)
  Used K-medoid clustering algorithm and Customer Value Model to perform customer segmentation.
- **Predicting text using N-Grams**: (N-Grams, Text Mining, R Shiny, R)
  Built an interactive R Shiny web application where a user can enter a string of text and the application would predict the next word. The algorithm used here is Katz Back-Off which uses the conditional probability of a N-Gram
- **Classification of dysfunctional stores**: (K-means clustering, Hypothesis Testing, HR Analytics)
  Built a predictive model for retail client identifying their potential dysfunctional store in future using employee data