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, KNN, Cross-Validation, Lasso and Ridge Regression, Decision Trees, Random Forest, Bagging, Boosting, Support Vector Machine, PCA, K-means clustering, Hierarchical clustering, A/B Testing, Neural Networks, Sentiment Analysis, Recommender System

Libraries: ggplot2, caret, dplyr, tidyr, pandas, numpy, scikit-learn, plotly

Software: **R**, SQL, Python, SAS, VBA, RShiny, Apache Spark, **Tableau**, **GitHub**, Arena, , MS Excel

Certificate: **Data Science Certificate** , a 10-course specialization by John Hopkins University on Coursera

EXPERIENCE

Quantium Analytics — **July 2014 – April 2017**

Analyst

Role **Retail**

- Built a customer propensity model to predict whether a customer is going to redeem a reward coupon
- Led a team of MicroStrategy software developers and client's Business Intelligence team to deploy the Quantium Solution in-house (Sydney, Australia)
- Moved to Sydney Australia as a **Subject Matter Expert** (2016)
- Delivered Customer Churn analysis to understand impact of campaigns on customer shopping behavior
- Devised an excel based customer health dashboard with 150+ KPIs, reflecting the high-level business trend and showing how retail customers were earning reward points through different channels
- Programmed in Teradata SQL to calculate 150+ KPIs using macros, and advanced SQL functions
- Performed customer segmentation using K-means Clustering, "*Customer Value Model*" and "*Share Of Wallet*" Model in Apache Spark

Insurance

- Applied lasso regression to deconstruct competitor's insurance pricing structure to evaluate client's competitiveness for different customer segments (age, claim history, address, driving experience)

Results **Retail**

- Improved scanning of loyalty cards by 5% (~450,000 more weekly transactions)
- Reported a data discrepancy of weekly sales worth $40 million missing from the client's database
- Client revamped $500 million loyalty program and introduced a 0.5% base reward earn rate on every transaction

Insurance

- Automated 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 Partition Around Medoids realization of K-medoids to perform clustering of the customers
- **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