# Piyush Verma

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## 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

**ML:** 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** **Between July 2014 – April 2017**

**Subject Matter Expert**, Sydney Australia (Retail)

Tasks
- Lead a team of software developers and business analysts to implement a Quantium Solution at client's place
- Selected from Quantium India to directly support client for 10 weeks (July 2016 – October 2016) in Sydney
- Supported client's team in building multiple reporting layers in MicroStrategy by transferring data knowledge
- Responsible for assuring data analysis quality by performing checks and passing metrics

Results
- 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
- Communicated findings effectively via dashboard that the client revamped its $500 million loyalty program and introduced a 0.5% base reward earn rate on every transaction

**Analyst, India** (Retail)

Tasks
- Used Apache Spark to perform customer segmentation using K-means clustering and Customer Value Model
- Built a simple propensity model to predict whether a customer is going to redeem a reward coupon

Results
- Improved client's data understanding and paved way for generating 3 more projects for Quantium

**Graduate Analyst, India** (Insurance)

Tasks
- 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)
- Added an extra layer of quality check by integrating excel with SQL table and generating premium trends

Results
- 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