

SONAL MENDIRATTA

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PROFESSIONAL SUMMARY

Data Scientist with four years of experience in building data-driven and science-led solutions for fortune 500 companies in retail domain

CORE COMPETENCIES

- **Technical:** Supervised Learning (Linear Regression, Logistic Regression, KNN, SVM, Naïve Bayes, Decision Trees, Random Forest, Artificial Neural Network), Unsupervised Learning (K-Means, Hierarchical Clustering, Dimensionality Reduction Techniques), Control Selection, Hypothesis Testing, Statistics, Sentiment Analysis, Collaborative Filtering, Biased Sampling
- **Languages:** Python, R, PySpark, SAS, SQL, MATLAB, C
- **Tools:** Tableau, Git, SPSS, MS Office suite
- **Soft Skills:** Stakeholder Management, Project Management, People Leadership and Mentoring

EDUCATION

University of California, Irvine, The Paul Merage School of Business, CA 06/2020
Master of Science, Business Analytics | Faculty Fellowship Award | Vice President – Merage Analytics Club

- **Hackathon Organized by Orange County’s R Users Group and MAC** - Won Best Model Award by predicting which customer would subscribe to a term deposit by using Logistic Regression in R and applying Synthetic Minority Oversampling Technique to manage imbalance dataset for a better overall model prediction

University of Delhi, India 05/2014
Master of Science, Statistics | Gold Medalist

University of Delhi, India 06/2012
Bachelor of Science, Statistics

EXPERIENCE

Dunnhumby, Gurgaon, India 06/2014 - 07/2018

Lead Analyst 04/2018 - 07/2018

- Led the 5 member loyalty team for Meijer and developed data science modelling solutions for mPerks Rewards loyalty program that generated **\$11M** uplift per month on average
- Built Customer Segmentation using Hierarchical Affinity Clustering and Gaussian Mix Modeling to aid in customer strategy, targeting and campaign planning

Senior Analyst 01/2016 - 03/2018

- Conceptualized, developed and deployed vendor funded customer targeting via offerings at till using Supervised and Unsupervised Learning algorithms which helped generate **\$200M** of incremental annual sales through brands like Lancome and Michael Kors
- Improved efficiency by migrating solutions from SAS to PySpark decreasing analyst’s efforts by **70%** and machine hours by **50%**
- Built Dunnhumby’s first Predictive Analytics based solution for Petco on open source using Affinity and K-means Clustering, Regularized Logistic Regression and Linear Regression and targeted **150K** customers and generated **\$215K** uplift in a month
- Created acquisition model for CRM proposition for Circle K Europe using Item-Item Collaborative Filtering
- Successfully won the global multi-million-dollar contract for McDonald’s by building Churn Model using Logistic Regression to predict what factors are likely to make a customer churn away from the store

Analyst 06/2014 - 12/2015

- Worked on personalized and targeted communications for category growth, new product launch and brand penetration for Kroger generating **40%** average uplift per mailer
- Built methodology for test/control and pre/post analysis and delivered CRM evaluations that measured the impact of the targeted communications

PROJECTS

- **Sentiment Analysis on Yelp Data** - Built a text classifier on Python using Logistic Regression model to predict a restaurant’s rating on Yelp
- **Web Scraping** - Scraped Indeed website to gather information around Skills needed for a Data Scientist roles in top companies as well of reviews of these top companies
- **S&P 500 Index Prediction** - Predicted whether the S&P 500 Index would have a gain for two days in a row on R using Decision Tree and Random Forest
- **Churn Prediction** – Built Neural Network to predict which customer is likely to churn away from a bank