# ANURAG GANDHI

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## **EDUCATION**

Carnegie Mellon University, H. John Heinz III College, Pittsburgh, PA

12/2017

Master of Information Systems Management- Business Intelligence and Data Analytics

Cumulative GPA: 3.93

**University of Delhi,** Netaji Subhas Institute of Technology, Delhi, India **Bachelor of Engineering, Manufacturing Processes and Automation** 

06/2014

GPA: 3.45/4.00 (WES)

#### SKILLS

Tools and Programming: Python, R, SQL(Advanced), SAS 9.3, OLAP, JAVA, Weka, MS Access, Advanced Excel, VBA

# **COURSEWORK**

**Spring '17:** Machine Learning (Theory - 10601), Interactive Data Science, Machine Learning for Problem Solving, Advanced Business Analytics, Data Warehousing

Fall '16: R for Analytics, Statistics, JAVA, Intermediate Database Management (SQL, Oracle), Text Analytics, Python, Applied Econometrics

## **WORK EXPERIENCE**

The Smart Cube, Noida, India

(Client: a major **supermarket chain** in the UK)

## Senior Analyst - Data Analytics

10/2015 - 07/2016

- Led offshore project team to develop inverse association rules (*market basket analysis*) and time series based technique to identify substitute products during a retail promotion; designed an automated procedure using *Python, SQL* and *SAS*
- Worked on development of a promotional ROI assessment tool for a major supermarket chain based in UK
- Modelled sales of more than 3,000 SKUs in 5 product categories using *hierarchical mixed effects regression* to isolate promotional impact from latent factors and deliver insights on drivers of successful retail promotional strategies; data sources range from *large transaction data*, competitor pricing and assortment of products to weather and events
- Used *POS data* for over 10,000 SKUs in 600 supermarkets to understand customer buying patterns and predict *intensity of cannibalization* when a substitute product is promoted; analysis helped client inform promotional strategy based on margin loss and make ranging and space decisions

## Analyst - Data Analytics

08/2014 - 09/2015

- Developed Test and Control methodology (*A/B testing*) using *time-series analysis* techniques to assess effectiveness of various retail campaigns, store refurbishments, concessions of a third-party retailer, and product trials
- Developed and automated anomaly detection algorithms to be integrated with a mobile application designed to provide performance alerts and daily reports to retail store managers.
- Measured "halo" impact of pharmacy on other products in a store, performed k-means clustering to group similar stores
- Independently handled client communications and increased performance efficiency of client's other batch retail analytics procedures by about 35%
- Conducted training sessions for project team members on retail data infrastructure in client's Enterprise Data Warehouse (Teradata), extraction queries in SAS-SQL, typical analysis process flow, and data pipeline automation
- Built data visualizations using *Excel-VBA* based dashboards and PowerPoint presentations to communicate results to onshore delivery manager and client team
- Honors & Awards: Best Debutant (2015), Kudos Award (2015), Smart Team Award (Dec 2014, Dec 2015)

## **ACADEMIC PROJECTS AND REPORTS**

- Machine Learning: Working on course project to translate sign language to natural language 03/2017 05/2017
- Data Warehousing: Built a warehouse, OLAP cube and advanced SQL queries to model financial relationships in Healthcare
   03/2017
- Data Mining (R): Exploration of factors affecting gender-income gap using NLSY97 dataset, R, and R Markdown 10/2016
- Implemented Bernoulli Naïve Bayes from scratch to distinguish between articles from two different sources 02/2017
- Text Mining: Performance comparison of machine learning algorithms (Naïve Bayes and SVM) and various text representations for classification and sentiment analysis. Public datasets: OHSUMED, Reuters, Amazon reviews 11/2016
- Text Mining: Frequency and co-occurrence analysis on Wall Street Journal text data to understand associations between entities (people, organizations etc.)

  11/2016
- Data Mining in Python: Used NLTK library to perform frequency analysis on scraped web data

12/2016