

# 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: 3.83/4.33

**University of Delhi**, Netaji Subhas Institute of Technology, Delhi, India 06/2014  
**Bachelor of Engineering, Manufacturing Processes and Automation**

## SKILLS

**Tools and Programming:** Python, R, SQL, SAS 9.3, JAVA, C++, Microsoft SSIS, OLAP, Weka, MS Access, Advanced Excel, VBA

## COURSEWORK

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

**Fall '16:** R for Analytics, Statistics, JAVA, Intermediate Database Management, Text Analytics, Python, Applied Econometrics

**Fall '17 (Planned):** Big Data and Large Scale Computing, Decision Making under Uncertainty, Distributed Systems

## WORK EXPERIENCE

**The Smart Cube**, Noida, India

**Senior Analyst – Data Analytics**

10/2015 – 07/2016

(Client: a major supermarket chain in the UK)

- 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/dashboard 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

**The Smart Cube**, Noida, India

**Analyst – Data Analytics**

08/2014 – 09/2015

- Developed Test and Control methodology (*A/B testing*) using *time-series analysis* techniques and designed metrics to measure effectiveness of 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
- Handled client communications & increased efficiency of client’s 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 (Excel-VBA, Power BI, PowerPoint) to communicate results to client team
- **Honors & Awards:** Best Debutant (2015), Kudos Award (2015), Smart Team Award (Dec 2014, Dec 2015)

## ACADEMIC PROJECTS AND REPORTS

- Interactive Data Visualization: Origin and fusion of music genres: <https://goo.gl/3SdCpi> 03/2017
- Machine Learning: Working on course project to translate sign language to natural language 03/2017 - 05/2017
- Machine Learning: Prediction of a car’s MPG using Support Vector Machines (Radial Basis Function Kernel) 02/2017
- Machine Learning: Prediction of termination status using Logistic Regression and Decision Trees 03/2017
- Machine Learning: Wage prediction using Linear Regression with non-linear features and regularization 02/2017
- Data Warehousing: Built a warehouse, OLAP cube 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 & co-occurrence analysis on news corpus to understand associations between entities 11/2016
- Data Mining in Python: Used NLTK and other libraries to perform frequency analysis on scraped web data 12/2016
- Automated classification of fasteners for selective assembly using digital image processing <https://goo.gl/9fwVR1> 2014