RAJAT MALHOTRA

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EDUCATION

The University of Texas at Austin — Master of Science in Business Analytics — May 2018
Coursework includes: Predictive Modeling, Marketing Analytics, Decision Analysis, Text Analytics, Stochastic Control & Optimization, Time Series Modeling, Financial Management

National Institute of Technology, Trichy — Bachelor of Technology (Hons.), Chemical Engineering — May 2017
Overall GPA: 8.77/10

ACADEMIC PROJECTS

Optimizing target inventory levels of produce at Kroger stores (Capstone Project sponsored by Kroger) (Ongoing) — Spring 2018
- Tasked with providing inventory level targets to execute against, increasing the profitability of their produce department, increasing the freshness of their produce for customers, assessing the financial impact of carrying too much or too little produce

KKBox Music Prediction Challenge (Kaggle competition) — Fall 2017
- Built a Collaborative filtering algorithm using singular vector decomposition; AUC for validation set: 0.73
- Performed content based filtering using Random Forests, XGBoost, Light Gradient Boosting; Best results with Random Forests: 0.81
- Engineered a blended model with LGBM and Logistic regression to improve computational time; AUC for validation set: 0.76

Sentiment analysis of movie reviews on Rotten Tomatoes using Python — Fall 2017
- Scraped Rotten Tomatoes for movie ratings and reviews; compared the sentiments for movie reviews with ratings using Vader
- Created word clouds to determine the most important words associated with a movie to streamline marketing efforts using NLTK

Prediction of car prices using R — Summer 2017
- Developed predictive models to determine the price of a car given 15 different features
- Determined the RMSE using the following models: Linear regression, Ridge, Lasso regression, Decision trees, Random forests, Bagging and Boosting; Least error was obtained for a bagging model with 160 trees and 650 terminal nodes

AWARDS

USAA Hackchat Hackathon 2018 (1st position; Total number of teams: 20) — Spring 2018
- Predicted document labels for phone conversation transcripts by analyzing text present in the transcripts

EXPERIENCE

Engineers India Limited – *Intern;* Delhi, India — Summer 2016
- Collaborated with the Heat and Mass Transfer Team for four weeks to understand working and design of absorbers, heat exchangers and fired heaters used in the crude oil refining process; Designed a PFD for a hydrogen production plant

Tata Chemicals Limited – *Intern;* Mithapur, Gujarat — Summer 2015
- Performed energy and material balance on a makeup water plant to produce 478 TPD of iodized salt while minimizing wastage using Microsoft Excel; Designed a multi-pass evaporator to concentrate brine to a supersaturated level

LEADERSHIP EXPERIENCE AND ACTIVITIES

Engineers Without Borders – *President* (Fall 2016 – Spring 2017) — Spring 2015 – Spring 2017
- Managed a highly motivated team of 12 student members with the aim of solving social problems using engineering
- Engineered a low-cost exoskeleton arm using hydraulic pistons for factory and construction workers

Aaveg – *Organizing Head* (Fall 2014 – Fall 2015) — Fall 2013 – Fall 2015
- Led a team of 120 members to organize a three-day sports and cultural event for the freshmen; Raised $10k through t-shirt sales

Freshmen Orientation Program – *Overall Coordinator (Fall 2014)* — Fall 2014 – Fall 2015
- Coordinated a team of 300 mentors to assist freshmen with a smooth transition into college life
- Systematized mentor allocation process by assigning mentors to freshmen using multiple criteria

ADDITIONAL INFORMATION

Computer Skills: Python , SQL, R, Hadoop map-reduce (Basic), C++, Tableau (Basic)
Work Eligibility: Extended eligibility to work in the U.S. due to S.T.E.M. certification; will require visa sponsorship for long-term employment