ANIRUDH K MURALIDHAR

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EDUCATION

08/15 – Current **Masters in Data Science** at Indiana University-Bloomington, Indiana
CGPA: 3.83/4, Graduating May 2017

08/10 – 05/14 **B.E Electrical and Electronics** at SSN College of Engineering, Chennai, India
CGPA: 7.42/10

EXPERIENCE

06/16 – 12/16 **Data Science intern at Lands'End**, Dodgeville, Wisconsin

- Worked with the marketing department to develop data driven strategies using advanced analytics as opposed to the existing data reporting tools.
- Handled complex relational databases, highly unbalanced datasets with missing values.
- Developed a customer segmentation model with ~40K data points based on income range, profession, and race, with demographic and purchase pattern as features. Model was evaluated with 10K points, gave an adjusted rand score of 0.74, 0.67 and 0.60.
- Developed a prediction model with 40K data points to find the preferred category for female customers. When tested on 10K points, model gave an average f-1 score of 0.68. Model was then A/B tested with the current model for email marketing and it showed 6% increase in visitor counts when tested for two weeks.
- Led a multidisciplinary team of four undergraduates to make a business report which discusses the various ways and benefits of driving the business as an omni-channel model.
- Developed a recommendation system with 10K product data. When A/B tested with the current model for two weeks, it showed 3% increase in visitor counts.
- Worked on a market basket analysis with 75K transaction data. Various association rules were derived using several threshold(0.1,0.2,0.3), confidence(0.6,0.7,0.8) and lift(1,1.1,1.2) values.
- Developed a churn prediction model with 50K data points to predict customers who are likely to churn out in a span of two years and find the features which influences the churn. Model was evaluated with 10K data points and gave an average f-1 score of 0.67.

06/14 – 06/15 **Analyst** at Mobius Knowledge Services, Chennai, India

- Developed generalized scripts to crawl data from web and then perform data preprocessing such as handling missing values, other language data, and data transformation.
- Programmed scripts to analyze the data for price comparison across various retail brands, price trend of products over the time, and graphically visualize them.
- Trained a set of 15 employees in Python programming over a period of two months to expand the usage of Python in the organization.

SKILLS

Skills: High Proficiency in Python, R and JavaScript, MATLAB.
Database: MY-SQL
Data pipeline: Course level experience in Apache Spark.
Others: Latex, Microsoft Office, Tableau.
Keywords: Machine learning, Data Mining, Regression, Classification, Statistical modelling, Data Analysis, Big Data, Natural Language Processing, Deep learning, Tensorflow, Scikit, Time series analysis.

SELECTED ACADEMIC PROJECTS

Fall 2016 — **Opiate/Opioid prescription analysis using machine learning** [Python]
Analyzed the non-opiate drug prescription pattern of several doctors by developing a prediction model to predict if a given doctor is an opiate prescriber or not. An accuracy of 76% is achieved when tested with 25K points using 5 fold cross validation.

Fall 2016 — **Kobe Bryant's NBA career analysis** [Python, JavaScript]
Analyzed Kobe's performance in NBA mainly through visualizations to mine insights from the data. Also, developed a prediction model to predict if Kobe will hit or miss a shot which gave an accuracy of 67% when tested on 80K points using 10 fold cross validation.

Spring 2016 — **Build a decision tree classifier, along with a bagging and boosting wrapper, and evaluate its performance** [Python]
Implemented the decision tree algorithm from scratch and added a bagging and boosting wrapper to enhance its performance. The result showed bagging and boosting effect depends on the tree's depth.

Spring 2016 — **Performance comparison of various algorithm for document classification** [Python]
Worked on a project under the guidance of Professor Johan Bollen where the performance comparison for various algorithms are done and reported for the newsgroup dataset, where SVM was found to be best.

Fall 2016 — **Build a simple movie recommendation system and measure its performance** [Python]
Implemented a movie recommender system using distance measure such as Euclidean, Manhattan on movielens dataset of 100K and performed 5 fold cross validation which resulted in an error rate of 0.78.

LEARDERSHIP ACTIVITIES

09/14 – Current — Professional Development Chair at ASIS&T, a student organization at Indiana University.

- Supervise the organization's progress and find ways for its expansion.
- Interview people from industry and academics to get their views on data science to share that among students.

EXTRA CURRICULAR

- Avid learner of the Vedas (ancient Indian literature) in order to better understand the culture and ancient lifestyle.
- Spirited photographer, I love to see things through my third eye, which gives a different perspective of my environment. My works [https://goo.gl/aUeB73].