Satyajit Narayanan

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Work Experience

***Data Scientist**, Tanger Outlets* *Jan 2019 - Present*

- Leading the Data Science efforts by identifying opportunities and helping design smarter marketing campaigns.
- Designing A/B test experiments for digital marketing campaigns and analyzing their performance.
- Developed multiple dashboards used by leadership and across all 40 outlet centers to monitor performance metrics.
- Projects:
    - *Direct mail ranking model:* Developed a ranking model that identifies high-value customers more likely to redeem promotional coupon using *XGBoost*, leading to a *~30%* increase in coupon redemptions YoY.
    - *Receipt OCR:* Collaborating with external partners to extract itemized information from customer receipt images using OCR and an RCNN field classification model on PyTorch to enrich & monetize customer data.

***Data Analytics Intern**, CUNA Mutual Group* *Jun 2018 – Aug 2018*

- Developed an R Shiny tool to automate cleaning of different data streams and flagging potential data discrepancies reducing time required for the Data Stewards to check data quality from 2 weeks to 4 days

***Decision Scientist**, Mu Sigma Inc.* *Aug 2014 – Mar 2017*

- Enabled Fortune 500 clients to solve business problems by framing the methodology, coding the solution, making inferences from analysis, & communicating recommendations to clients
- Worked with account leads and the Sales team on business development activities and secured a pilot project.
- Received a *Spot Award* for formulating analyzing strategy and successfully executing a pilot project.
- Projects:
    - *Customer Segmentation Analysis:* Created customer behavioral segments to better target advertisements based on store visit patterns using K-means clustering, leading to a 2% increase in the overall ad click-through rate.
    - *Campaign Performance Measurement:* Calculated the effect of marketing campaigns on revenue and the quantity of auto parts sold using predictive analytics (forecasting).
    - *Pricing Recommendations:* Developed an optimal pricing strategy and designed experiments (A/B Testing) simulating demand to recommend revision of prices for 600 auto parts, leading to an *11%* increase in profits.
    - *Product Launch Analysis:* Led a team of 5 data scientists to identify factors determining the marketing potential of generic pharmaceuticals, as well as new markets in which to invest, using a random forest algorithm.

Projects

- *Lenovo - Predicting Customer Satisfaction using Customer Sentiment:* Predicted Net Promoter Score (NPS) of products based on their online review using Principal Component Regression analysis with a 6% error rate
- *Recommendation Engine:* Created a tool to predict movies a user would watch using the Collaborative filtering model (Pandas, NumPy & Sklearn). Visualized it as an interactive dashboard on a *Jupyter notebook* using *iPython* widgets.
- *Twitter Sentiment Analysis:* Predicted airline sentiment from tweets using a supervised lexicon-based approach with an accuracy of 73%. Implemented the Naïve Bayes and Decision Tree algorithm.

Education

***Master of Operations Research (MOR)**, North Carolina State University, USA [GPA: 3.97/4.0]* *Aug 2017 – May 2019*
***Master of Arts (M.A.),** Economics, University of Mumbai, India* *Aug 2015 – Mar 2017*
***Bachelor of Technology (BTech.),** Civil Engineering, Veermata Jijabai Technological Institute, India* *Jul 2010 – May 2014*

Skills

DB + Cloud: SQL Server, AWS (S3, Redshift, EMR), Hadoop (MapReduce, Hive), Azure Databricks, Azure ML, Docker
Programming: Python (NumPy, Pandas, SciPy, Sklearn, Keras, OpenCV), R, SAS, Stanford CoreNLP, NLTK
Analytics: PowerBI, Rshiny, Jupyter, Tableau, Matplotlib, GGplot, Seaborn