STACY LEE

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Proficient: Python, R, SQL Basic: Scala, HTML5/CSS/JavaScript, SAS Languages

Libraries Python: NumPy, Pandas, Sklearn, SciPy, StatsModels, Matplotlib R: Tidyverse, Caret

Data Tools Hive/Hadoop, Google BigQuery, Tableau, Trifacta, Azure, AWS, Spark, UNIX, Git

Education University of Illinois at Urbana-Champaign

> **M.S. in Statistics** Analytics Concentration Dec 2018

Relevant Courses: Machine Learning, Computational Statistics, Data Mining

B.S. in Civil Engineering Systems Engineering Concentration May 2017

Experience

Carat, a Dentsu Company

New York, NY

Analyst, Data Analytics Data Science Impact Team

Sept 2019 - Present

- Lead the strategy for creating a new composite scoring metric using principal component analysis, selecting test & control market pairs to measure advertising impact, & creating cost estimates to generate baselines of significant sample sizes for Fortune 100 clients
- o Implement additive time series model using over 50 variables for causal impact analysis with results that received positive client feedback & became an official team product
- Oversee end-to-end research & development of XGBoost model for production forecasting
- Improve online ad performance by over 20% through optimal frequency & creative analyses
- Develop automation code & data flows using REST APIs for presenting daily or weekly reports
- o Create data visuals to investigate discrepancies and gain deeper insights on media trends
- Collaborate across teams to ensure proper tag taxonomy for Facebook & Twitter ads
- Launch first monthly data science learning program within team to encourage growth

Ameren **Data Science Innovation Intern** Innovation Team

Champaign, IL Jan 2018 - Dec 2018

- Led a 5-person team project for identifying individuals out of 1.4 million customers with high propensities of enrolling & saving in energy savings programs using demographic data of 150+ features to create a target list of recipients who will receive the promotional bill insert
 - Built custom tools for exploratory data analysis to gain insights & formulate a data strategy
 - Implemented random forest for 1% imbalanced class ratio and improved recall by 90%
 - Applied Bayesian statistics with logistic regression for targeted marketing deliverable
 - Surfaced and presented insights on customer trends through storytelling to stakeholders
- Researched methods to replace the traditional utility pole health assessment process
 - Converted & reformatted raw data collected from sensors to facilitate analytics
 - Utilized clustering methods to find patterns in pole health based on movement
- Assisted with recommender system to estimate solar PV adoption for distribution planning
- o Mentored team members on machine learning, statistics, and programming in Python or R
- Created & documented code to extract large datasets from AWS S3 for team efficiency

Competitions Synchrony Financial Datathon Top 5 of 25 Teams with Best MSE Score

April 2018

- Researched the impact of federal interest rates on home improvement spending
- o Implemented Elastic Net with Five-Fold Cross Validation for the final submission

Projects

Machine Learning & Computational Statistics Projects [stacy-lee.github.io/ds/projects.html]

- o Monte Carlo method to identify Weibull PDF in Traffic Volume Counts 2012 NYC Open Data
- o Time series with fourier seasonality on Walmart sales data achieved WMAE less than 1630
- Logistic regression for movie review analysis with NLP achieved AUC greater than 0.95

Algorithms (Written From Scratch) Random Forest, k-NN, Lasso Regression, Apriori