Orrin S. Wheeler

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Searching for opportunities in the Data Science space after implementing logistic regression model for gas consumption and loving it! Master's in IT with a Business Analytics focus and Bachelor's in Mathematics. Professional DBA and Software Engineer. Capable of communicating from entry through director level.

TECHNICAL SKILLSET

Machine Learning Various CART models (Random Forest, Neural Network, Linear/Logistic Regression, Decision Trees), k-means clustering, feature engineering, data splitting, cross validation techniques, bootstrap aggregation (bagging), supervised and unsupervised learning

Software Engineering R, Agile Methodologies, SAS Enterprise Technologies

Data Wrangling PL/SQL, Oracle, Stored Procedures, MySQL, Database Design/Management, data cleaning, data tidying

Analytics Statistical Analysis, Mathematical Modeling, Business Analytics

Data Visualization GGVis, GGPlot2, SAS Enterprise Miner

General Computing Microsoft Office, Advanced Excel

PROFESSIONAL EXPERIENCE

Old Dominion Freight Line Thomasville, NC

Master's Thesis - Gas Mileage Predictive Model *September 2017 – December 2017*

- Identified potential truck driver and gas mileage ROI validation opportunity based on conversations with BI Team lead. With a predictive model, the business could compare actual truck gas mileage performance collected via sensor data versus expected behavior to identify and improve sub-optimal performance.
- Collected, aggregated, and tidied data from Oracle DB, Excel spreadsheet, and other sources in order to generate a clean data set. Implemented data tidying best practices as defined by Hadley Wickham. This included various types of feature scaling to limit range of data and ensure smooth model training. Implemented feature engineering based on conversations with SMEs and BI Team.
- Selected third degree logistic regression model for implementing predictive modeling based on best performance on test data (model RMSE score of 1.09 with 1.29 standard deviation). Discussed with stakeholders and found this was acceptable to the business. Other models were rejected.
- Validated model results using 10-fold cross validation. Each fold resulted in similar scores. This was initially implemented using SAS's Enterprise Miner and re-implemented using R independently for automation and streamlining capabilities.
- Successfully applied predictive model and k-means clustering to identify fleet of trucks with similar types of performance characteristics, including those that are under performing. Currently in discussions with Company Directors about best approaches to implement results.

Old Dominion Freight Line Thomasville, NC

Oracle Database Administrator *May 2016 – Present*

- Designed and developed ad hoc reports for communicating weekly results from third party software to upper level management utilizing RMarkdown documents.
- Worked alongside the business intelligence team to implement statistical analytics processing to existing reporting for better clarity into cause and effects of implementing changes to Old Dominion strategy.

- Responsible for the modernization of AS400 database system from early 90s to Java on Unix web servers. This meant interpreting and understanding original flat file design with limited documentation and designing compatible Oracle DB structures used in a cluster environment.
- Developed user requested applications such as new data sources, creating new tables and views, updating foreign/primary indexes, etc. by coding PL/SQL (procedural queries) using agile methodologies and software engineering best practices. Considerations for data integrity, database design schemas, and indexing are very important for ensuring high performance.
- Implemented DBA best practices due to development teams working on legacy and Oracle systems concurrently. This includes validating data quality and data synchronization using Veridata and version controlling for Database structure using DBMaestro.
- Served as primary point of contact and knowledge distribution for data synchronization processes.

Lucy C. Ragsdale High School Jamestown, NC
Mathematics Teacher *December 2013 – April 2016*

INDEPENDENT/ONLINE LEARNING

R For Data Science
DataCamp.com, Certificate of Completion *January 2018*

- Independent learning in order to complement self-perceived gaps in capabilities.
- Incorporated bootstrap aggregation as a means of improving Random Forest species classification model based on various flower metrics using Iris dataset.
- From scratch implementation of Neural Network with 2 hidden layers and 6 total nodes to determine customer response rate to given market response scenarios on a 0-1 probability scale.
- Implementing SAS's Enterprise Miner GUI functionality in R for improved automation and streamlined dataflow using Agile Methodologies to break down and manage developmental processes.
- Designed charts and visual aids using various data visualization techniques for use in feature and conclusion presentation
- Developed text mining workflow using bag-of-words and semantic parsing techniques

EDUCATION

University of North Carolina Greensboro Greensboro, NC
MS: Information Technology and Management with concentration in Business Analytics *December 2017*

- Coursework focused on business analytics for competitive advantage using SAS Enterprise Software
- Produced multiple end to end exploratory data analyses with the objective of identifying patterns and outliers within various datasets

Appalachian State University Boone, NC
BS: Mathematics, Secondary Education *December 2013*
Relevant Highlights

- Developed wolf-deer population models based on predator-prey interaction characteristics. Continually improved model incorporating new ideas for feature engineering. Final product resulted in an ensembled model across multiple piece-wise domains.
- Applied combinatorics with linear algebra to solve graph theory problems of varying complexity. Required different types of domain decomposition strategies.