TYLER HIMES

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>> DATA SCIENCE | MACHINE LEARNING

MOTIVATION

I am passionate about solving business problems using Data Science and Machine Learning. I systematically and creatively use my skillset to add tangible value to the team, the business, and the end-user. I am constantly learning and always looking to improve.

SKILLS & TOOLS

Programming: Python (Base, Pandas, Numpy, Matplotlib, Scikit-Learn, Keras), SQL, R

Machine Learning: Linear Regression, Logistic Regression, Decision Trees, Random Forest, KNN, k-means, PCA, Association Rule Learning, Causal Impact Analysis, Neural Networks, TensorFlow, PyTorch

Other: Statistics, Github, Data Visualization, Tableau, PowerBI, QlikView, HTML, PHP

PROJECTS

Enhancing Targeting Accuracy

- Calculated the probability of customer response to marketing communications. This would result in a more targeted customer selection, leading to significant cost reductions and improved ROI, while providing valuable insights into customer behavior.

Quantifying Sales Uplift

- Used causal impact analysis to accurately measure sales uplift from customer activities. Uncovered actionable insights by establishing a robust counterfactual scenario, highlighting the event's true impact on sales performance.

Determining Customer Loyalty

- Developed a robust predictive model using Random Forest algorithm to accurately forecast customer loyalty. Achieved a high cross-validation r-squared of 0.925, enabling precise customer tracking, targeted marketing, and effective communication strategies.

Predicting Customer Purchases

- Leveraged PCA to streamline input features, reducing dimensionality by 75% in predicting customer purchases. Achieved a 93% accuracy with a Random Forest classifier, which would save costs on the marketing budget for a targeted product.

"You Are What You Eat" Customer Segmentation

- Employed k-means clustering on grocery transaction data to segment customers into distinct "shopper types." Found valuable insights into customer behavior dynamics over time, providing more focused targeting with tailored content and promotions.

Image Classification

- Built a powerful neural network model for accurate classification of clothing articles from images, achieving 90% accuracy. This would provide personalized product recommendations, enhancing the shopping experience and customer satisfaction.

Standardization and Trends

- Applied Python for data standardization and detailed time series analysis with Matplotlib, uncovering key patterns, relationships, and driving data-informed decision-making.

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EXPERIENCE

Analytics Engineer | Health Catalyst
NOVEMBER 2021 - PRESENT

- Led a successful project to convert 5 complex executive dashboards from QlikView to Tableau in just 6 months, resulting in cost savings and modernized dashboards.
- Optimized and standardized SQL queries, improving efficiency and accuracy of data analysis processes.
- Mentored and trained 4 team members in Tableau dashboard development.

Programmer Analyst II | Controller's Office, Utah State University
NOVEMBER 2016 - NOVEMBER 2021

- Strengthened web application security, improved functionality, and streamlined business processes using PHP, HTML, JavaScript, jQuery, and Tableau.
- Automated over 15 tasks using SQL, resulting in enhanced data accuracy and significantly saving time for accountants.
- Developed more than 20 dynamic dashboards and reports by writing customized and complex SQL queries that enabled clients to optimize their business functions.

EDUCATION

Master of Data Analytics
2018 - 2020 - Utah State University, UT

B.S. | Management Information Systems
2012 - 2017 - Utah State University, UT

COURSES & CERTS

DSI Data Science Professional Certification

Actionable Learnings: Extracting and manipulating data using SQL. Application of statistical concepts such as hypothesis tests for measuring the effect of AB Tests. Utilizing Github for version control and collaboration. Using Python for data analysis, manipulation, and visualization. Applying data preparation steps for Machine Learning (ML) including missing values, categorical variable encoding, outliers, feature scaling, feature selection and model validation. Applying ML algorithms for regression, classification, clustering, association rule learning, and causal impact analysis for measuring the impact of an event over time. ML pipelines to streamline the ML pre-processing and modeling phase. Deployment of a ML pipeline onto a live website using Streamlit. Using Tableau to create powerful data visualizations. Turning business problems into Data Science solutions.

Python for Data Science and Machine Learning Bootcamp (Udemy)

Actionable Learnings: Plotting with Matplotlib and Seaborn, geographic plotting. Data preparation and feature engineering. Regression and Classification models: Linear and Logistic Regression, KNN, Decision Trees, Random Forests, SVM, K-Means Clustering, PCA, Recommender Systems, NLP, Deep Learning.

Neural Networks From Scratch In Python (Harrison Kinsley, Daniel Kukiela)

Actionable Learnings: Developing neural networks from scratch, using only raw Python. Image classification. Understanding of how Deep Learning packages, such as Tensorflow and PyTorch, function.