Ryan Jones

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I have always been intrigued by mathematical, statistical and analytical analysis, the processes involved in understanding real-world phenomena, and identifying solutions to difficult problems. In the past, this natural curiosity steered me to study numerous topics while in school and later helped me to graduate with a bachelor's degree in mathematics and a minor in statistics. On top of this, I have a *profound* interest in data analysis and modeling. My appetite for learning has led me to embark on a continuous quest for knowledge. I devote considerable time and effort into learning, refining, and practicing the required skills to make data science my career choice.

Education

M.S. Data Analytics
University of Central Florida, Graduation date of May 2021

Curriculum focusing on statistical methods, preprocessing data, visualization, machine learning, cloud computing and data storage techniques. Classes culminate in a project designed to test knowledge of learned concepts.

B.S. Mathematics + Minor in Statistics
University of Central Florida, May 2015

Applied mathematics curriculum included differential equations, linear algebra and numerical methods, among other technical topics.

Work Experience

Business Analyst *August 2019 – present*
AeroCare Holdings Inc. (now AdaptHealth)

Continued development of a proprietary customer resource management tool using an Agile production process. I assume various roles as needed - project manager, business analyst, tester, trainer - allowing me to gain experience in multiple domains.

Math & Statistics Teacher, *August 2016 – June 2019*
Wekiva High School

Increased Algebra I student test scores by 8%, on average, over the year prior by using targeted remediation derived from data analysis.

Most Impactful Teacher for top 5% graduating senior.

Completed Projects

Consumer Propensity Model

Constructed user-movie ratings models, utilizing KMeans and Alternating Least Squares algorithms, and employed PySpark as part of a graduate school project focusing on machine learning using cloud computing techniques to identify consumer propensity towards unseen movies.

More information at
https://github.com/rybojones/MSDA-Recommendation-System

Natural Language Processing and Contextualization

Utilized natural language processing techniques to perform sentiment analysis and topic modeling for all U.S. Senate and House of Representative member Tweets in the month leading up to the 2020 Presidential election. These findings provided insight into the limitations of sentiment analysis on social media text and how context can be obfuscated when using such a technique.

Visuals at
https://public.tableau.com/profile/ryan.jones1301#!/

Open Projects

Binary Classification Using Domain Knowledge

As a member of a four-person team, I am participating in a joint organization (University of Central Florida – Orlando Utilities Commission) data science competition with the stated goal of disaggregating customer load usage in order to identify customers with an electric vehicle. I also have the added benefit of gaining experience working with large data (25+ billion records in some tables) in a SnowFlake database and learning how this affects data insight, cleaning and model selection.

Time-Series Modeling and Prediction

I am working as a member of a small consultancy team for Southern States ToyotaLift to fulfill my Capstone requirement for graduation. We have been tasked with predicting the point in time that the maintenance cost per hour becomes greater than the purchase cost per hour of a forklift. We are using SCRUM software development process as we create a model to fulfill the business specifications and implementing this workflow using GitHub.

Open Projects (Continued)

Binary Classification Using Machine Learning

Collaborating with a team of close female peers, I am participating in the Women in Data Science 2021 Datathon organized by Kaggle. We are working to identify ICU patients with Diabetes Mellitus based on initial diagnostic data, with the aim to reduce mortality rate. We have been lucky to organize meetings with domain experts who provide valuable information. This exchange of information will enable us to create an ensemble method, utilizing medical research and data science to create a better performing model.

Optical Character Recognition (Upcoming)

With friends and members of my MSDA 2021 cohort, we plan to create a free-for-use tool that identifies text in an image, using OCR, and subsequently translates that text to the Braille print file format. We feel that this would help to reduce persistent costs surrounding replicating print material for the visually impaired, especially in special needs classrooms.

Tags

Python, R, Git, Pandas, Numpy, SciKit-Learn, NLTK, Keras, PySpark, MPI4Py, Cloud Computing, Machine Learning, Tableau, Power BI, Matplotlib, Seaborn, Plotly, JavaScript, RMarkdown, GGPlot, Tidyverse, Jupyter, Observable

Please visit my personal website at rybojones.github.io for more information about me!