Ryan Jones

Data Scientist

Contact

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Education

MSc Data Analytics
University of Central Florida, May 2021

BSc Mathematics
Minor Statistics
University of Central Florida, May 2015

Awards + Distinctions

Exceptional Graduate Student Award in Data Analytics (4.0 GPA)

Winner of UCF Big Data Analytics Symposium 2021 competition

Top 5% Graduate Most Impactful Teacher Award

Certifications + Clearance

AWS Machine Learning Specialty

AWS Cloud Practitioner

Udacity Nanodegree - Programming for Data Science

Public Trust Clearance

Snapshot

Senior data scientist with experience delivering impactful and responsible models. I bring passion to projects as I endeavor to identify, develop, and deploy efficient and performant solutions. I strive to be a champion for knowledge sharing and collaboration among colleagues. I have, and continue to, devote considerable time and effort into developing, refining, and practicing the required skills to successfully exercise robust data science principles in my endeavors.

Work Experience

Codecademy - Sr. Data Scientist
August 2023 - Present

- Development and deployment of text similarity recommendation models to API endpoint
- Creation of financial forecasting models designed to aid leadership team in strategic planning
- Advisor to, and data expert for various product teams

Codecademy - Data Scientist
June 2022 - August 2023

- End-to-end development of KPI forecasting models
- Experimentation design and support
- Product analytics and feature release support

Deloitte Consulting - Solution Analyst; Data Science, USDC
June 2021 - June 2022

- Development of ad-hoc ML regression and classification models
- Quality assurance and validation of statistical methods
- Strategic advisement of data architecture and advanced analytics

AdaptHealth - Data Analyst; Advanced Analytics Group
August 2019 - May 2021

- Data model design and refactoring
- High priority/value projects with direct reporting to executive team
- Agile software development of internal CRM tool (product owner)

Wekiva High School - Mathematics & Statistics Teacher
June 2016 - July 2019

- PLC leader; content and delivery design
- Remediation planning through performance analysis

Tools + Skills

Programming: Python, SQL, Git, dbt, R, Bash, GraphQL, JavaScript, HTML, CSS, C, Agile Development

Analytics + Development: Snowflake, Looker, AWS, dbt, FastAPI, PowerBI, Tableau, AWS, PostgreSQL, MS SQL Server, Observable, Optimizely

Machine Learning Libraries: pandas, numpy, scikit-learn, prophet, pycaret, mlflow, xgboost, Pyspark MLLib, seaborn, plotly, matplotlib, nltk, spacy, gensim, keras, tensorflow, torch, ggplot, tidyverse, fastapi

Machine Learning Algorithms: Linear Regression (OLS, Ridge, Lasso, ElasticNet, PLS, PCA Regression), Non-Linear Regression (Linear Methods w/ Transforms, Support Vector Machine, K Neighbors Regressor), Classification (Logistic Regression, Decision Tree, Random Forest, LightGBM, XGBoost, K Nearest Neighbor, Naive Bayes), Bootstrapping, Bagging, Boosting, Clustering (K Means, Hierarchical, DBSCAN, Agglomerative), Time Series Analysis (Moving Average, Auto Regression, ARIMA, Prophet), Neural Networks (RNN, LSTM, Transformer, Auto Encoder, GAN, CNN), Feature Importance (Permutation, Shapley, Tree Based)

Other: Instructional Design, Content Delivery and Presentation, Consulting Best Practices, Project Management, Strategic Planning for ML

Project Experience

Text Similarity Recommendation Engine Using Sentence Transformer
Developed and deployed a product-embedded model framework serving content recommendations based on text similarity. This solution, which replaced a hard-coded variant, contributed to statistically significant increases in engagement and session duration, and boosted search engine optimization (SEO) score through improved internal linking.

Network Graph of Call Center Traffic
Developed a novel network graph solution to visualize customer call traffic patterns across thousands of nodes (customer service agents). This technology improved overall customer experience (+21% customer ratings) by enabling management to reroute calls to avoid bottlenecks and remove unwanted loops that kept callers from reaching a final destination.

Time-Series Forecasting Models for What-If Scenarios
Utilizing independent time-series, developed scenario models to estimate the effect that changes to correlated variables would have on the target, an endogenous time-series. These scenario models represented "what-if" estimates and were used by the executive team for strategic and financial planning.

Regression Modeling with Driver Analysis for Customer Experience
Generated customer overall satisfaction regression models by combining survey and operational data. Identified key drivers, and corresponding importance, to guide resource allocation decisions as part of the broad goal of customer experience improvement.

Binary Classification for Electric Vehicle Charging Station Mapping
Working with large data, disaggregated electric utility load usage to classify customers with or without EV charging stations. Defined a domain knowledge model that outperformed traditional machine learning models by achieving, on average, 10%+ higher accuracy, precision and recall. This enabled the organization to identify geographical areas to target for investment.

Binary Classification Using Machine Learning Ensemble
Collaborating with a team of close female peers in the Women in Data Science 2021(WiDS) worldwide data-thon organized by Kaggle, we created an ensemble model utilizing XGBoost and Linear Regression to identify ICU patients with Diabetes Mellitus. We were able to achieve an AUC score a mere 0.010 below the winning submission score.

Collaborative Filter Recommendation Engine Utilizing Parallelized Computing
Constructed user-movie ratings models, utilizing user-defined 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.