Zack Strathe

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Professional Summary

Motivated professional with over five years of experience as an analyst working with data in accounting roles. Recent graduate with a master's degree in Data Analytics, with a strong interest in machine learning/artificial intelligence and their applications to solve countless problems and develop actionable insights from data. Academic projects demonstrate understanding and applications of fundamental data science concepts such as distributed computing to handle "big data", machine learning methods, deep learning methods, and statistical analysis methods. Programming skills include over three years of development experience with Python and numerous data science libraries, as well as advanced familiarity with R and SQL.

Professional Experience

Accounting Analyst II / Crestwood Midstream Partners LP, Kansas City, MO / April 2018 – January 2021
- Cleaned, analyzed, and aggregated accounting transaction data to produce monthly preliminary forecasts and financial reconciliation statements for bulk NGL production and trading
- Orchestrated settlements for complex multi-modal transactions by standardizing data and developing detailed tracking of NGL transactions from multiple sources
- Developed Python script to automate expense entry into ERP system, utilizing OpenPyXL, PyAutoGUI, PyWinAuto, PyTesseract, and tkinter

Accounting Analyst I / Crestwood Midstream Partners LP, Kansas City, MO / August 2015 – April 2018
- Collaborated with traders and logistics coordinators to oversee daily contract allocations and billing for LPG commodities trading, and analyzed accounting transaction data to detect and resolve discrepancies

Skills

Programming Languages: Python, R, SQL

Tools: Pandas, PySpark, MLlib, OpenCV, NLTK, Numpy, Scikit-learn, TensorFlow, PyTorch, Tableau, Alteryx, Power BI, Matplotlib, Plotly, ggplot2, Git, OpenPyXL, PyAutoGUI, PyTesseract

Professional: Project Management, Leadership, Communication

Education

Kansas State University / **M.S. Data Analytics** / Data Science Program Track
- GPA: 4.0
- Relevant Coursework: Programing Techniques for Data Science and Analytics, Principles of Artificial Intelligence, Machine Learning and Pattern Recognition, Introduction to Econometrics, Social Media Analytics & Web Mining, Information Technology Strategy & Application, Regression & Analysis of Variance, Applied Marketing Analytics, Business Analytics & Data Mining

Kansas State University / B.S. Finance

Academic Projects

Image Feature Extraction & Classification with PySpark
- With the PySpark distributed framework in Python, evaluated methods of feature selection and compared performance of classification algorithms with a data set of 500,000 labeled satellite images, and implemented 10-fold cross validation with a paired t-test to validate evaluation results
- Deployed a Spark cluster on AWS EMR with a S3 bucket to test functionality
- Technologies used: Python, PySpark, MLlib, OpenCV, Numpy, GCP, AWS EMR

Game Playing Reinforcement Learning Model
- Developed a deep reinforcement learning model to play the game Mario Bros, using the OpenAI Gym framework in Python, and evaluated methods of improving the trained Proximal Policy Optimization (PPO) model with modifications to the state-space, the action-space, and the reward function
- Technologies used: Python, OpenAI Gym Retro, OpenAI Baselines, TensorFlow, GCP

Comparison of Deep Learning Text Generation Models
- Trained unconditional text generation natural language models from a text corpus of song lyrics, utilizing recurrent neural networks (RNNs) and generative adversarial networks (GANs) in Python with the PyTorch deep learning framework, and evaluated text output by utilizing a combination of human scoring and a computed score
- Technologies used: Python, PyTorch, TextBox (GAN algorithms)

Statistical Analysis of Home Pricing
- Developed a linear model in R to conduct statistical analysis of home pricing and evaluated the linear model compared to a more-complex generalized additive model (GAM) for predictive performance
- Technologies used: R, ggplot2

Certifications

CompTIA Cloud Essentials+ (issued 12/2021)