ZACK STRATHE

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Project Portfolio: zstrathe.github.io

Objective

Seeking full-time employment as a Data Scientist or Machine Learning/Artificial Intelligence Engineer

Education

Kansas State University, Manhattan, KS

M.S. Data Analytics / Data Science track / In-Progress (August 2022 expected completion)

- Selected Projects:

  Satellite Image Feature Extraction & Classification Using PySpark
  Evaluated methods of feature selection and compared performance of machine learning classification algorithms with a data set of 500,000 labeled satellite images, entirely using the Apache PySpark distributed computing framework in Python

  Training a Deep Reinforcement Learning Agent to Play Mario Bros
  Trained a reinforcement learning agent to play the game Mario Bros, using OpenAI's Gym framework in Python, and evaluated methods of improving the trained proximal policy optimization model with modifications to the state-space, the action-space, and the reward function.

  Comparison of Deep Learning Text Generation Models Trained with Song Lyrics
  Developed and evaluated text generation language models trained with a corpus of song lyrics, utilizing recurrent neural networks and generative adversarial networks in Python with the PyTorch deep learning framework

  Statistical Analysis of Home Pricing with Linear Modeling in R
  Created a linear model in R to conduct statistical analysis of home pricing in Kansas City, MO, and evaluated the linear model compared to a more-complex generalized additive model for predictive performance

  Business Capstone Data Visualization Project
  As team coordinator, led student team in consulting with a client company, Centralized Supply Chain Services, LLC, to provide research findings into data visualization methods, and developed visualization dashboard implementations that provide greater insight into the status of their nationwide supply chain, utilizing both the Plotly package in Python and Power BI to transform selected data into visualization dashboards

B.S. Finance / Financial Management track / December 2012

Skills

Programming Languages:

- Python, R, SQL

Data Analytics Tools:

- Pandas (data analysis Python package), NLTK (natural language processing Python package), Scikit-learn (machine learning Python package), Apache PySpark (distributed computing framework for Python), Alteryx (data analytics platform)

Data Visualization Tools:

- Tableau, Matplotlib (Python package), ggplot2 (R package)

Experience

Crestwood Midstream Partners LP, Kansas City, MO

Settlements Analyst II / April 2018 – January 2021

- Developed GUI script in Python to automate process of entering expenses into cloud-based ERP system
- Produced monthly financial reconciliations for producer agency marketing agreements totaling approximately $200M annually

Settlements Analyst / August 2015 – March 2018

- Managed daily contract allocations and billing, and monitored accounting transactions for purchases and sales of LPGs for various marketing groups, and monitored marketing P&L statements to identify, analyze, and correct accounting valuation errors

HNTB Corporation, Kansas City, MO

Billing Associate / October 2013 – August 2015

- Managed monthly billing process for approximately 75 architecture and civil engineering projects

Certifications