Scott Pitcher

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SUMMARY

Driven Data Scientist with 2+ years of experience in research and development, specializing in neuro-symbolic AI and statistical analysis. Skilled in optimizing processes, seeking to expand my skill set through challenging, impactful projects.

SKILLS & LANGUAGES

Tools: PyTorch, TensorFlow, MySQL, NoSQL, AWS, GCP, Apache Spark, Computer Vision, Flask, Docker, Kubernetes

Programming Languages: Python, SQL, R, MATLAB, Java, Ruby, HTML, Javascript, CSS, Lua, C++

WORK EXPERIENCE

Moffitt Cancer and Research Institute, *Tampa, FL*   September 2022 – June 2024

Research Data Scientist

- Led the implementation of advanced statistical techniques, including Bayesian Inference and Propensity Score Matching, enhancing model performance by 12% in R-squared to improve data quality and manage confounding variables.
- Increased model efficiency by 31% through Causal inference to identify and refine key variables and active learning to improve model training and accuracy.
- Researched and developed state-of-the-art supervised deep learning models in PyTorch for odds and mortality prediction, achieving a mean accuracy of 94%.
- Engineered Python pipelines (scikit-learn, Spark) to optimize retrieval of 250GB of data, reducing API access time by 36%.
- Collaborated with a cross-disciplinary team to present data insights through reports and visualizations (seaborn, Tableau), informing strategic decisions for future projects.

EDUCATION

University of South Florida, *Tampa, FL*   *August 2020 – June 2024*

Bachelors of Science in Computational Mathematics*: Data Analytics and Business Intelligence Concentration*

- Cumulative GPA: 3.86/4.00 *(Magna Cum Laude)*; USF Green & Gold Scholarship *(~$15,000/year),* Dean's List
- ***Relevant Coursework:*** Advanced Probability, Data Analysis, Machine Learning Development/Deployment, Statistics

PROJECTS

Pokemon Platinum AI - *(GitHub)*   *July 2024 - September 2024*

- Developed and optimized an AI gameplay model leveraging reinforcement learning with human feedback (RLHF), increasing task completion rate by 35% and improving decision-making efficiency in complex gameplay environments.
- Implemented action pruning to streamline the model's decision-making process by limiting the action space, resulting in a 25% reduction in time to reach the target in-game objectives.
- Enhanced the AI's ability to retain sequential gameplay data by integrating LSTM-based memory in PyTorch, boosting decision-making accuracy by 31%.
- Integrated YOLOv9s object detection for real-time gameplay frame analysis, achieving a 78% reduction in manual annotation time through automated labeling and model fine-tuning.
- Reduced computational costs by 22% via model architecture optimization and effective GPU utilization, maintaining high model accuracy while lowering resource usage.

Spotify User Analysis And Recommender System – *(GitHub)*   *July 2024*

- Implemented reinforcement and active learning techniques, elevating predictive accuracy by 20% through user-interaction adaptation, addressing diverse user behavior patterns.
- Reduced customer churn by 44% with a scalable playlist recommender in PyTorch using GCNConv layers, enhancing user retention across varied demographics.