

Jhalyl Mason

jhalyl.mason@colorado.edu • linkedin.com/in/jhalyl-mason • jhalylm.github.io/myportfolio • (202) 210-8747

Summary

Detail-oriented Graduate Computer Science student with a 3.9 GPA, specializing in data analysis, predictive modeling, and machine learning. Proficient in Python and SQL, with extensive experience in data visualization tools such as Tableau. Demonstrated ability to apply statistical techniques and machine learning algorithms to drive actionable business insights. Seeking a data science or analytics internship to leverage technical skills and collaborate on innovative projects that enhance data-driven decision-making and optimize performance in dynamic environments.

Education

Masters of Science in Computer Science (MsCS), University of Colorado Boulder Graduation: May 2026
GPA: 3.9/4.0
Relevant Coursework: Data Mining, Machine Learning, Probability & Statistics, Data Structures & Algorithms

Technical Skills

Programming Languages: Python, SQL
Data Analysis & Visualization: Pandas, NumPy, Matplotlib, Seaborn, Tableau
Machine Learning & AI Frameworks: Scikit-Learn, TensorFlow, NLTK
Technologies & Algorithms: Predictive Modeling (Neural Networks, Regression), Natural Language Processing (NLP), Clustering, Decision Trees, Random Forest, XGBoost
Other Tools: Apache Spark, Jupyter Notebook, A/B Testing, MS Office Suite

Experience

Information Technology Help Desk Associate, Conduent — remote November 2022 – August 2023

- Performed data-driven analysis of recurring technical issues, identifying patterns that improved efficiency in issue resolution by 15%.
- Provided comprehensive IT support to over 100 users daily, troubleshooting software, hardware, and networking issues, and ensuring 98% customer satisfaction.
- Collaborated with cross-functional teams to develop and implement solutions, strengthening problem-solving and communication skills by delivering clear, technical solutions to non-technical users.

Projects

E-commerce Fraud Detection Model — Tools: Scikit-Learn, Pandas, NumPy, Matplotlib, XGBoost November 2024

- Developed and optimized a fraud detection model for e-commerce transactions using XGBoost, achieving 95.5% accuracy and high precision (0.96) for non-fraudulent transactions.
- Performed extensive hyperparameter tuning with Optuna, improving model performance by fine-tuning parameters.
- Addressed class imbalance by evaluating precision, recall, and F1-score, improving fraudulent detection performance.
- Worked with large datasets (1.4 million rows), leveraging Python libraries (Pandas, Scikit-learn, XGBoost) and Google Colab for model training and testing.

Social Media Sentiment Analysis ETL Pipeline — Tools: PySpark, Pandas, TensorFlow, Matplotlib, NLTK October 2024

- Built an ETL pipeline using Spark to clean and process 1.6 million social media records, enhancing data quality for Natural Language Processing and sentiment analysis.
- Employed Pandas for data manipulation and NLTK for text preprocessing (tokenization, lemmatization) to handle unstructured data.
- Trained a TensorFlow model, achieving 75% accuracy on sentiment prediction using binary cross-entropy loss.
- Visualized model performance with Matplotlib, including a confusion matrix to support actionable insights.

Customer Segmentation & Analysis — Tools: Pandas, Matplotlib, Seaborn, Tableau, Scikit-Learn September 2024

- Conducted exploratory data analysis (EDA) on a dataset of 200 customers, revealing key correlations in spending and income behaviors.
- Applied K-means clustering to identify segments, achieving a Silhouette Score of 0.55 for optimized targeting strategies.
- Designed an interactive Tableau dashboard for stakeholders to explore customer segments and make data-driven decisions.
- Delivered insights to improve ROI through targeted marketing strategies tailored to high-potential customer groups.

Certifications

Machine Learning Specialization, Stanford University April 2024

- Developed supervised models for prediction and classification tasks, achieving accuracy rates above 80%.
- Designed multi-class neural networks with TensorFlow; applied clustering and anomaly detection.

Mathematics for Machine Learning and Data Science Specialization, DeepLearning.AI April 2024

- Mastered optimization, statistical techniques, and function fitting.
- Applied hypothesis testing and statistical measures to validate model performance.

Digital Marketing & E-Commerce Professional Certificate, Google July 2023

- Specialized in A/B testing, ROI, and ROAS analysis, utilizing data to drive strategic decision-making.
- Gained experience in analyzing marketing metrics and optimizing campaigns through data-driven insights.