Carlos Marin

Houston, TX | 713-791-3494 | carlosmarinjr1@gmail.com | Portfolio | GitHub | LinkedIn

AI Developer / Machine Learning Engineer

AI Developer with a solid foundation in machine learning and deep learning principles, certified by the IBM AI Engineering Professional Certificate. Proficient in end-to-end model development using Python, Scikit-learn, TensorFlow, and Keras. Experienced in building, training, and deploying AI solutions to solve complex business problems. Seeking to leverage robust AI development skills to create innovative, data-driven products at a forward-thinking company.

DATA SCIENCE TECHNICAL SKILLS

• **Programming & Data**: Python (Pandas, NumPy, Scikit-learn, Statsmodels, SQL, PySpark), Excel
• **Machine Learning & AI:** Supervised & Unsupervised Learning, NLP, Deep Learning, Neural Networks, LLMs, TensorFlow, Keras, PyTorch
• **Data Visualization:** Matplotlib, Seaborn, Plotly, Power BI, Tableau
• **Software & Web:** JavaScript, React, Express.js, Django, HTML/CSS
• **Tools & Cloud:** Git, Jupyter, VS Code, Google Colab, REST API's

TECHNICAL PROJECTS

Emotion Detection Flask App | Github
Flask-based web application leveraging IBM Watson NLP to classify emotions in text.
- Engineered a REST API that classified user text into five core emotions, enabling instant feedback and enhancing interactive user experience
- Leveraged IBM Watson's pretrained NLP models to improve accuracy and reduce the need for custom model training, saving development time and compute resources.
- Built automated unit tests that improved reliability and cut manual verification effort by 80%.

Quantitative Analysis of Stock Market | Github
Conducted a comprehensive quantitative analysis of major tech stocks using Python to evaluate performance, volatility, correlations, and risk-return trade-offs for informed investment decisions.
- Visual and analytical comparison of each stock's risk (standard deviation) and average daily return using a custom-annotated scatter plot.
- Ranked visualization of volatility using color-coded bar plots with labeled values for easy interpretation..
- Correlation heatmap between stock closing prices to explore market co-movement patterns over time.

Optimizing Food Cost and Profitability | Github
Conducted profitability analysis for a food delivery service by extracting and standardizing discount data, calculating order-level costs, and simulating optimized commission and discount strategies.
- Extracted and standardized mixed-format discount data using custom functions to enable accurate cost calculations.
- Simulated new commission and discount strategies to identify optimal pricing for improved margins.
- Created clear, business-focused visualizations to communicate cost structures and profitability insights effectively.

PROFESSIONAL EXPERIENCE

Clinical Research Coordinator - Heart Failure, **Houston Methodist Hospital**, Houston, Texas   09/2021 - Present
- Managed clinical trials from patient recruitment to data integrity and regulatory compliance.
- Extracted and analyzed EMR datasets, creating structured data pipelines for eligibility analysis.
- Partnered with cross-functional teams to improve data quality, risk monitoring, and reporting processes.
- Supported probabilistic analysis and risk tracking through data collection and validation for outcomes.
- Coordinated with stakeholders and mentored junior staff on data management best practices.

EDUCATION & CERTIFICATIONS

IBM AI Developer Professional Certificate   October 2025

Flatiron School - Data Science Bootcamp   January 2023

University of Houston - Downtown, Houston, TX   May 2017
Bachelor of Science, Biological and Physical Sciences