Carlos Marin

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

AI Developer / Full Stack Engineer

Certified AI Developer and Full Stack Engineer with a strong foundation in Data Science. I bridge the gap between complex machine learning models and user-friendly web applications. Proficient in the complete software lifecycle—from training Deep Learning models with Python and TensorFlow to deploying scalable full-stack apps using React, Node.js, and Flask. Passionate about building intelligent, end-to-end systems that drive business value.

TECHNICAL SKILLS

• **AI & Machine Learning**: Large Language Models (LLMs), LangChain, Computer Vision, NLP, Supervised/Unsupervised Learning, Deep Learning (PyTorch, TensorFlow).
• **Full Stack Development:** Building scalable web apps using React, Node.js, and Express.js; Backend API development with Flask and Django.
• **Data Science & Analytics:** Statistical modeling (Statsmodels, Scikit-learn), Big Data processing (PySpark)
• **Database & Cloud:** SQL, PostgreSQL, Version Control (Git), Cloud Development Environments.

TECHNICAL PROJECTS

Cover Letter Generator: AI-Driven Personalization Pipeline | Github
Automated pipeline leveraging Google Gemini and LangChain to instantly generate tailored, professional cover letters by mapping PDF resume data to specific job requirements.

- Extracts complex candidate data from PDF documents using an automated parsing workflow.
- Synchronized professional experience with job descriptions via a structured LangChain orchestration.
- Generated personalized, ATS-friendly professional narratives in seconds by leveraging the Gemini 2.0 Flash large language model.

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.

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.

EDUCATION & CERTIFICATIONS

Codecademy | Full Stack Engineer Professional Certificate December 2025

IBM AI Developer | Professional Certificate October 2025

Flatiron School - Data Science Bootcamp January 2023

University of Houston - Downtown - BS - Biological and Physical Sciences May 2017