CARLOS FERRER

Generative AI Specialist | Data Scientist
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PROFESSIONAL SUMMARY

Generative AI specialist and Data Scientist with an M.S. in Data Science from Fordham University and 5+ years across AI/ML, analytics, payments, and fraud. Hands-on with ChatGPT Enterprise, Claude, and the OpenAI and Anthropic APIs; designs prompt-engineered AI agents and automated AI workflows (n8n, tool calling) for real business use. Serves as an escalation point for complex AI and technical issues and coaches users on prompt engineering, model selection, and AI best practices. Translates business challenges into practical AI solutions with methodical troubleshooting and a customer-focused mindset.

TECHNICAL SKILLS

GenAI Platforms & Tools: ChatGPT Enterprise, Claude, OpenAI API, Anthropic API, prompt engineering, AI agents (tool calling), n8n workflow automation and orchestration, model selection and evaluation
Programming & Integration: Python (Pandas, NumPy, scikit-learn), SQL, PySpark, REST APIs, API integration, Markdown, Git/GitHub, Docker, pytest
AI/ML & Analytics: Predictive and prescriptive modeling, NLP (BERT), XGBoost, CatBoost, SHAP, statistical methods, forecasting
Data & BI: PostgreSQL, SQL Server, MySQL, ETL/ELT, data pipelines, data modeling, Power BI, Tableau, Streamlit

PROFESSIONAL EXPERIENCE

Data Scientist | Auto Valley Group, East Stroudsburg, PA — Jun 2026 – Present

- Built an AI agent using prompt engineering and OpenAI tool calling across 21 analytics tools that writes weekly reports for non-technical stakeholders, with an AI output governance check that traces every generated number to source data to catch inaccurate results.
- Built a market intelligence platform (PostgreSQL, MarketCheck API, Next.js) with automated twice-daily competitor syncs that help ownership set retail prices and choose auction purchases.
- Designed and operationalized a prescriptive decision engine in production that turns market data into an explainable 0–100 opportunity score, target buy and retail prices, and budget-constrained acquisition plans.

Data Analyst | NeuronBrains, Cumberland, RI — Aug 2025 – May 2026

- Built Power BI dashboards tracking 20+ KPIs for executives (35% faster reporting) and automated recurring reports, cutting manual reporting time by 50%; analyzed multi-source data to flag recurring trends and anomalies.

Project Leader | Banco Popular Dominicano, Dominican Republic — Nov 2021 – Jan 2024

- Led delivery of a new payment process for one of the largest supermarket chains, processing 10,000+ monthly transactions and reducing reconciliation time by 40% through enhanced reporting.
- Managed a point-of-sale terminal rollout, balancing cost, timeline, and staffing plans across stakeholders.

Fraud Prevention Analyst | Banco Popular Dominicano, Dominican Republic — Aug 2019 – Nov 2021

- Troubleshot and investigated 200+ cases per month using a methodical root-cause approach, analyzing 1M+ monthly transactions in SQL and improving fraud detection rate by 25%.
- Identified recurring fraud patterns and tuned rule-based detection models, reducing false positives by 30%.

PROJECTS

MLB Intelligence Engine | Python, PostgreSQL, XGBoost, CatBoost, SHAP, Docker

- Trained four predictive models on 8.4M Statcast pitches and 150 seasons of stats to find undervalued players and forecast games, with SHAP explanations.

ReNew: Fake News Detection | NLP, BERT, DistilBERT, Hugging Face

- Benchmarked BERT and DistilBERT models (from scratch, fine-tuned, pre-trained) on unstructured text from a hand-verified PolitiFact dataset to guide model selection.

EDUCATION & CERTIFICATIONS

Master of Science in Data Science, Fordham University, Bronx, NY | GPA 3.7/4.0 — May 2025

Bachelor's Degree in Software Engineering, Instituto Tecnológico de Santo Domingo — 2020

Certifications: Data Engineering Specialization, STI Datos (2023); Data Science Specialization, IBM (2023)