

Rubén Darío Colmenares Negrín

Senior AI Engineer — Agentic Engineering · Production GenAI

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AI engineer specializing in agentic systems and production GenAI. Leads the AI engineering practice at GM Mexico, shipping multi-agent pipelines and advising C-Suite on enterprise AI strategy. Independently designs, builds, and maintains Martita ([martita.ai](#)), a production multi-agent WhatsApp assistant (~7,500 LOC, solo). Operates with AI-assisted development workflows (Claude Code, Cursor) as a core engineering practice.

EXPERIENCE

General Motors Mexico *Mexico City*

Senior AI Engineer, Commercial Innovation & Intelligence | Feb 2025 – Present

- Shipped a production Hybrid Search RAG commercial co-pilot (LuciA) serving GM Mexico's commercial teams — reduced hallucination rates by 40% and cut time-to-insight by 60%.
- Architected a screen-aware SOP Agent that auto-generates structured process documentation in real time, eliminating manual knowledge-transfer overhead across ~10 commercial teams.
- Leading the architectural definition for embedding LangGraph-based agentic workflows into legacy ERP systems to automate end-to-end commercial reporting at scale.
- Authored the corporate "Buy vs. Build" framework for LLM applications — adopted as the standard evaluation lens for all new AI initiatives across GM Mexico and referenced at the North America level.
- Primary AI advisor to C-Suite on enterprise AI strategy; accelerated pipeline development velocity with AI-assisted coding tools (Cursor, Claude Code) across all production GenAI workstreams.
- Lead AI upskilling across engineering and business teams: technical workshops, governance reviews, and practical GenAI adoption playbooks.

Data Scientist, Finance Pricing & Incentives (AI/ML Focus) | Jul 2023 – Feb 2025

- Conceptualized and shipped Mexico's first ML-based incentive optimization engine — now the standard decision tool for allocating multi-million-dollar monthly pricing budgets across vehicle lines.
- Built Log-Log regression models for price elasticity (XGBoost, Random Forest validators); integrated outputs into FY budgeting, forecasting, and accrual processes for incentive spend.
- Replaced manual financial reporting with automated PowerBI dashboards consumed by ~20 stakeholders across Finance and Sales; developed Python simulation tools to stress-test pricing strategies.

Marketing Product Owner, Digital Marketing | Jun 2022 – Jun 2023

- Led a Voice-of-Customer initiative using NLP and LDA topic modeling on unstructured app logs, driving a 20% increase in app adoption across GM's connected vehicle platform.

End-to-End Engineer, Connected Services (OnStar) | Jan 2020 – Jun 2022

- Built and maintained data pipelines in Hadoop (Hive SQL) processing millions of daily vehicle connectivity events; optimized SQL for large-scale datasets and real-time KPI monitoring.

Prior Experience — Distributed Systems & Telecom

AT&T Mexico — Network Engineer | 2017 – 2020

- Modeled distributed network topology (graph theory) in Python/Tableau to optimize traffic balancing; automated log analysis and anomaly detection across carrier-grade nodes.

Huawei Technologies — CS Core Network Engineer | 2014 – 2017

- Maintained and optimized mission-critical core network infrastructure for large-scale carriers across Latin America.

TECHNICAL SKILLS

Agentic & GenAI LangGraph, LangChain, multi-agent orchestration (Planner-Executor-Reviewer), RAG (hybrid search, BM25, cross-encoder reranking), vector DBs (ChromaDB), tool use, structured outputs, evaluator-generator patterns, Claude (Anthropic), Azure OpenAI, Google Gemini.

Languages & Frameworks Python (advanced), FastAPI, Flask, SQL (Hive, SparkSQL), Pandas, NumPy.

Machine Learning XGBoost, Random Forest, Log-Log regression / price elasticity, NLP (sentiment, LDA).

Infra & MLOps Docker, Railway, Git, Azure OpenAI Service, REST API design, automated ETL pipelines, agile/SAFe delivery.

Developer Tooling Claude Code, Cursor, PowerBI, Tableau, Hadoop.

Leadership C-Suite technical advisory, AI governance, Buy-vs-Build analysis, cross-functional program execution.

EDUCATION & CERTIFICATIONS

Professional Certificate, Artificial Intelligence & Machine Learning | 2023

UC Berkeley Haas School of Business

M.Sc. Data Analytics & Visualization | 2019

Tec de Monterrey

B.Sc. Telecommunications Engineering | 2013

Universidad Católica Andrés Bello

-Additional certifications: LangChain Agent Orchestration · Google LLM Prompting Essentials · SAFe 5 Agilist

INDEPENDENT PROJECTS

Martita — WhatsApp-Native AI Assistant for Mexican SMEs martita.ai

Python · Flask · Claude (Anthropic) · PostgreSQL · Supabase · WhatsApp Cloud API · FastAPI · Docker · Railway · Stripe

- Built solo, nights and weekends since July 2024 — ~7,500 LOC across 76 files. Live pilot with paying customers.
- Architected a multi-tenant agentic backend (one codebase, fully isolated per business) where Claude reasons over tool calls (+21 tools created) — `book_appointment`, `check_availability`, `send_reminder` — handling ambiguous, multi-intent Spanish messages the way a human receptionist would.
- Maintains structured cross-session memory per client (preferences, history, context) injected at inference time, not stored in the model.
- Building toward fully self-service onboarding: business owner pays via Stripe, completes a 4-step wizard, and Martita goes live, zero manual involvement.
- Target: Mexican dental clinics, medical offices, and salons already living on WhatsApp.
- Serves as a live testbed for production agent patterns: evaluator loops, structured outputs, cost/latency observability — before applying them at GM.