

# Juan Acosta

juan@acosta-li.com • 512-222-9438 • Austin, TX

Technical leader specializing in **architecting and deploying end-to-end AI/ML systems** from prototype to production scale. Led technical delivery for **30+ enterprise clients**, managing full lifecycle from requirements to deployment with ML infrastructure serving **2M+ daily predictions** and delivering **\$81M+ in measurable outcomes**. Built **production GenAI systems** (A2A, MCP) in healthcare. Experienced in distributed training, real-time ML systems, and cross-functional leadership.

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## Professional Experience

### Director of Data Science

Health Universe • October 2024 — Present

- Build multi-agent systems using a custom ADK and MCP; automate clinical trial documentation, oncology summaries, and data extraction.
- Lead pre- and post-sales client engagements, translating executive-level deliverables into actionable engineering and data-science workstreams.
- Fine-tune LLMs for medical NER to support patient summaries, prior authorizations, and recruitment.

### Founder & Principal Consultant

Acosta-Li LLC • August 2024 — Present

- Partner with Alithi Management Consulting to lead AI tools development for education at a large non-profit.
- Manage Atlas Mineral, a B2B SaaS platform for precious metal order reporting and tracking (\$1M+ monthly).
- Manage 4 data scientists and 2 project managers across healthcare, finance, and cybersecurity engagements.

### Senior Manager, Data Operations

Babson Diagnostics • August 2022 — August 2024

- Deployed real-time ML for algorithmic platelet counting (Docker, MongoDB, Python) with integrations linking Sysmex analyzers, LIS, and Salesforce.
- Led pipelines for order tracking, sample lifecycle, and financial monitoring with 1,000+ daily sample capacity.

### Manager, Data Science

ClosedLoop.ai • June 2021 — August 2022

- Technical advisor for 30+ enterprise clients from pre-sales through deployment; led requirements, demos, and executive briefings.
- Architected distributed ML pipelines on AWS (SageMaker, Jenkins CI/CD) powering 2M+ daily predictions.
- Designed predictive models for disease progression and admissions, contributing to **\$81M+** Medicare savings.
- Built EHR/FHIR → SQL pipelines with feature engineering and cohort logic; developed drift/bias monitoring.

### Software Engineer

Perfaware • July 2020 — June 2021

- Built scalable backend systems for pharmacy curbside pickup and order management during COVID-19.

### Data Researcher

Project SEED, University of Texas at Austin • 2018 — 2020

- Developed and deployed a regression model for pediatric prehypertension prediction, integrated into clinical decisions.

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## Education

**M.S. Computer Science** — Boston University

**B.S. Mathematics | B.A. Economics** — The University of Texas at Austin

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## Non-Technical Experience

### Co-Founder & Director of Coffee

Mù Coffee ATX • February 2025 — Present

- Co-founded specialty coffee shop with Chinese-inspired drinks; oversee operations and financial performance.

### Professional Soccer Player (Left Wing)

Baruta FC — Venezuelan liga FUTVE • 2009 Season

- Competed at a professional level during the 2009 season.

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## Skills

### Foundation Models & GenAI

LLM Orchestration (LiteLLM, LangChain, LangGraph), Agentic Workflows (Google ADK, OpenAI Swarm), Fine-tuning (medical NER), Prompt Engineering, Evaluation (inspect-ai), Cost Optimization, RAG, MCP

### ML & Data Science

TensorFlow, PyTorch (CUDA/GPU), Scikit-learn, Pandas, NumPy, Distributed Training, Custom Model Monitoring, Bias Detection, Ensemble Methods

### Cloud Architecture & Infrastructure

AWS: SageMaker, Lambda, EC2, S3, Jenkins CI/CD | GCP: Vertex AI, Cloud Run, BigQuery | Infra: Docker, Kubernetes, VMware, MongoDB, PostgreSQL, Snowflake

### Programming & Development

Python, Pydantic, Java, SQL, Spark, R, FastAPI (production APIs), Svelte, Streamlit, Vercel, RESTful API Design

### Data Engineering & Pipelines

EHR/FHIR Integration, Real-time Data Processing, ETL Design, Feature Engineering, Apache, System Design