

Victor Amaya

Enterprise AI Engineer · Industrial Intelligence · GPU · Full-Stack



Real-world AI for systems that already run the world.

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Senior engineer with **12+ years** shipping production software across exchanges, AI/simulation labs, and industrial manufacturing — with the past six years focused on enterprise AI and ML systems. Currently building **Ciro AI** — a real-time computer-vision and LLM-agent platform deployed across three countries for chemical and pharmaceutical manufacturers. Previously led ML and simulation systems at Vertex Studio (\$1M+ ARR, Epic MegaGrant), scaled the 3D retail metaverse at VirseHQ to \$15M ARR, and built matching-engine infrastructure at Kraken. Comfortable from CUDA kernels to React frontends.

CORE EXPERTISE

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|---------------------------|-----------|--|
| AI / ML Systems | 6+ years | Production ML, real-time GPU inference, MLOps (PyTorch, TensorRT, ONNX) |
| LLMs & Agents | 2+ years | Multi-agent systems, RAG, tool-use, NL-to-SQL (OpenAI, Anthropic, LangChain) |
| Computer Vision | 6+ years | Industrial QC, defect detection, edge inference (YOLO, DETR, OpenCV, DeepStream) |
| GPU & CUDA | 3+ years | Custom kernels for inference, training, proving; H100 & Jetson deployment |
| TypeScript / React | 10+ years | Web platforms, dashboards, SDKs (Next.js, Vite, Three.js, React Native) |
| Node.js / Python | 10+ years | APIs, real-time backends, ETL, FastAPI, GraphQL, PostgreSQL |
| Rust / C / C++ | 8+ years | High-performance services, matching engines, low-latency systems |
| Cloud & DevOps | 8+ years | AWS, Docker, Kubernetes, Terraform, MLflow, observability |

EXPERIENCE

Founding Engineer & CTO — **Ciro AI**

Aug 2024 — Present · Remote · US / LATAM

TypeScript · React · Node.js · FastAPI · Python · PyTorch · PostgreSQL · DuckDB · AWS

- Architected and shipped the full **Ciro AI** production platform — TypeScript/React dashboards, Node.js + FastAPI backends, PostgreSQL/DuckDB analytical store, Python ML services. Live in **three countries** for chemical and pharmaceutical manufacturers.
- Designed the GPU-backed agent system: LLM tool-use, transformer-based vision models (YOLO, DETR), real-time anomaly detection, and an NL-to-SQL interface over operational data lakes.
- Built **Órbita** — the React Native + Expo field-sales companion — with offline-first sync and deterministic conflict resolution. Deployed to industrial distributors across LATAM.
- Shipped DTE/DGII e-invoicing integration for LATAM ERP customers (Node.js, async queues, audit trails). XFounders Accelerator (Starknet Foundation & StarkWare); presented at Hi Tech! Stuttgart Match Arena Batch #9.

Founding Engineer — **BitSage Network (Obelyzk Protocol)**

Sep 2025 — Present · Remote

Rust · CUDA · Cairo · Next.js · TypeScript · STWO

- Authored **Obelyzk** — an open-source Rust ZK proving engine for ML inference. **First on-chain verification of a 14-billion-parameter neural network** (Qwen2.5-14B) on Starknet Sepolia.
- Built the first GKR sumcheck prover on StarkWare's STWO (Circle STARKs, M31 field). **20,000+ lines of custom CUDA; 950+ tests**. Published as `obe1yzk` on crates.io and PyPI; `@obe1yzk/sdk` on npm.
- Shipped the Next.js marketplace, TypeScript SDK, and Discord bot integrations. Speaker, **zkSummit 14**, Rome (May 2026).

Lead ML & Simulation Engineer — **Vertex Studio (Simbotic · Sortium · Cosmogene)**

Mar 2020 — Mar 2023 · California

Unreal Engine 5 · PyTorch · Rust · NVIDIA · React · Three.js

- Led ML and simulation systems behind **Simbotic**, the studio's advanced AI simulation platform — Unreal Engine 5, PyTorch, Rust, NVIDIA, Kubernetes. **Epic MegaGrant recipient**.
- Co-led **Sortium** (AI-powered 3D-asset production pipeline) and **Cosmogene** (consumer AI pets in procedural 3D worlds). Grew the enterprise synthetic-data product from R&D to **\$1M+ ARR**.
- Shipped the customer-facing web platform in React + TypeScript with a Node.js job-orchestration layer on AWS Batch. Computer-vision pipelines (PyTorch, OpenCV, TensorRT) for NVIDIA edge devices.

Lead Protocol Engineer — SugarFunge Protocol

Jan 2022 — Aug 2024 · Las Vegas, NV

Substrate · Rust · Next.js · TypeScript · GraphQL

- Designed the high-throughput marketplace and on-chain economics engine for game and creator economies. Substrate / Rust core, Next.js + TypeScript + GraphQL frontend, Discord + Telegram bot integrations, on-chain analytics dashboard.

Product Engineer — Kraken (via skalex GmbH)

Mar 2017 — May 2020 · Munich, Germany

Node.js · TypeScript · C++ · Redis · WebSocket

- Built matching engines, liquidity protocols, and HFT infrastructure for tier-one cryptocurrency exchange operators. Node.js + TypeScript services with C++ low-latency components; Redis for hot-path state.
- High-availability architecture: active-active deployment, custom WebSocket fan-out, fault-tolerant order books with strict latency budgets.

Product Engineer & Regional Director — VirseHQ

Jan 2015 — Mar 2017 · Los Angeles

Unity · Unreal · React · Node.js · WebGL · Meta XR

- Full-stack engineering on an AI-powered 3D retail metaverse for enterprise brands. React + Node.js for the management console, Unity + Unreal for the 3D runtimes, WebGL clients, real-time multiplayer networking. Reached **\$15M ARR**.
- Shipped XR integrations to Meta Quest and Rift; led LATAM regional expansion (enterprise sales motion, localization, on-prem deployments).

Co-founder & Chief Innovation Officer — Novatech / Kadevjo

Jan 2014 — Dec 2015 · San Salvador, El Salvador

Unity · C# · iOS · Android

- Co-founded mobile-game studio. Shipped **Guanapolio** (Salvadoran Monopoly with cultural icons) on iOS and Android, plus a portfolio of mobile titles in Unity / C#. Grew to **\$1M ARR, exited**.

EDUCATION

MIT Sloan School of Management — MicroMasters — Finance

2024 — 2025

Stanford University — Game Theory & Economics

2021 — Present

Harvard University (Coursera) — CS50 Python · AI Product Management

SKILLS

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|-----------------------|---|
| ML / AI | PyTorch · TensorFlow · JAX · CUDA · ONNX · TensorRT · Hugging Face · distributed training · fine-tuning (LoRA, QLoRA) |
| LLMs / Agents | OpenAI APIs · Anthropic APIs · LangChain · Llamaindex · vLLM · RAG pipelines · tool-use agents · function calling · NL-to-SQL |
| Vision | YOLO · DETR · Segment Anything · OpenCV · NVIDIA DeepStream · GStreamer · FFmpeg · synthetic-data generation |
| Languages | Python · TypeScript · JavaScript · Rust · Node.js · C / C++ · Go · Swift · C# · Lua · Cairo · Solidity |
| Frontend | React · Next.js · Vite · Three.js · WebGL · React Native · Expo · Tailwind · Framer Motion |
| Backend | Node.js · FastAPI · Express · GraphQL · REST · PostgreSQL · Redis · DuckDB · Apache Parquet · Kafka · gRPC |
| 3D / Sim | Unreal Engine 5 · Unity · Blender · OpenGL · GLSL · NVIDIA PhysX |
| Infrastructure | AWS · GCP · Docker · Kubernetes · Terraform · MLflow · Weights & Biases · GitHub Actions · Open-Telemetry · Grafana |

SELECTED HIGHLIGHTS

- **Ciro AI** — production AI platform deployed across three countries for chemical and pharmaceutical manufacturers. XFounders Accelerator (Starknet & StarkWare).
- **Simbotic** — Epic MegaGrant recipient for Unreal Engine 5 + PyTorch simulation platform bridging virtual and physical worlds.
- **Obelyzk.rs** — open-source ZK proving engine; first on-chain verification of a 14B-parameter neural network on Starknet Sepolia (Apr 2026).
- **VirseHQ** — scaled the AI-powered 3D retail metaverse to \$15M ARR; led LATAM regional expansion.
- **Speaking** — zkSummit 14, Rome (May 2026) · ETHGlobal Cannes hacker (Apr 2026) · Hi Tech! Stuttgart Match Arena (Nov 2025).