
Carlos D. Escobar-Valbuena

Agent OS Architect & AI Engineering Lead

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SUMMARY

Builder of AI-native, multi-tenant data platforms in production. Concurrent senior leadership across three roles for the last 18 months: **AI Lead at Stimulus** (agentic procurement SaaS for FIFA 2026 + Olympics Committee), **Data Architect contractor at TEAM International**, and **Co-founder & CTO at Wedi Pay** (agentic cross-border payments on Kafka + Databricks, through Jun 2026). Open-source author of Life Agent OS, Lago (event-sourced persistence), and Vigil (OTel-native observability). 7+ years professional, MSc in AI at Universidad de los Andes (2026).

CURRENT & RECENT ROLES

AI Lead *Stimulus*

Nov 2024 – Present

Architecture redesign of an AI-native, Databricks-backed agentic procurement platform serving FIFA 2026 and the Olympics Committee. Lakehouse-native real-time substrate: **Databricks Zerobus** streaming into a Unity-Catalog-governed **medallion architecture** (bronze / silver / gold). Multi-document RAG with policy-bounded tool adapters; LLM auto-failover (Claude + OpenAI); hardened JWT auth and rate limiting for multi-tenant clients.

Co-founder & CTO *Wedi Pay*

Oct 2024 – Jun 2026

Multi-tenant B2B agentic payment orchestration. Turborepo + Next.js + FastAPI + LangGraph; Postgres RLS for tenant isolation; Kafka/Redpanda event-driven backbone with Databricks gold-table ETLs; Wedi Agents for in-product assistants under strict policy and scoped credentials. Signed and shipped payment-rail integrations on a provider-agnostic layer: Prometeo (open-banking B2B account-to-account), TruBit / VelaFi (USDC on/off-ramp, multi-country), Thirdweb (web3-native flows).

Data Architect (Contract) + Sr. ML/AI Tech Lead (2022–24) *TEAM International*

Nov 2020 – Present

Owned the Time Series Engine product end-to-end: multi-tenant streaming + batch telemetry on Databricks + MLflow + PyTorch handling 10K+ records/sec with arbitrary pipelining and Azure Digital Twins integration. Anchor customer: a NYSE-listed US natural-gas operator with ~70K wells across multiple US basins. Production medallion-style bronze / silver / gold tables since 2021. Currently architectural advisor on those pipelines.

OPEN SOURCE & RESEARCH

Life Agent OS — Rust agent runtime kernel; multi-tenant gateway with TLS 1.3, JWKS, KMS abstraction (Vault Transit / AWS KMS / GCP KMS), token-bucket rate limiting, event-sourced persistence on redb v2, OTel-native observability via the `vigil` crate. 15+ crates on crates.io.

Haima — Agentic finance engine; x402 metered M2M payments with USDC settlement on Base. 6-crate Rust workspace.

RCS (Recursive Controlled Systems) — 5-paper series formalizing LLM-as-controller agents as a 7-tuple Σ with hierarchical stability budgets. Foundations paper complete.

bstack + broomva/skills — open-source agentic development harness: 20 automation primitives + 48 portable agent skills (Claude Code / Codex / Cursor / Gemini CLI); control-native architecture for autonomous workflows; ongoing autonomy / search / intelligence research on the RCS substrate.

SKILLS

Languages: Python, Rust, TypeScript, SQL

Lakehouse: Databricks (Unity Catalog), Snowflake, PySpark, Iceberg, Trino, Kafka/Redpanda, Dagster, MLflow

AI / Agentic: Anthropic Claude, OpenAI, AWS Bedrock, LangGraph, LangSmith, Langfuse, MCP, pgvector, BM25 hybrid retrieval, evaluation harnesses

Cloud: AWS, Azure (AKS, ML, Digital Twins), GCP, Kubernetes, Terraform, GitHub Actions

Governance & Observability: OpenTelemetry, Unity Catalog RBAC, Postgres RLS, KMS-per-tenant, data contracts, lineage, JWT auth, multi-tenant isolation

EDUCATION

MSc, Artificial Intelligence — Universidad de los Andes (2026). **BSc, Mechatronics Engineering** — Universidad de San Buenaventura (2018, GPA 4.1/5.0).