MAURO ORLANDO

Senior Software Architect · Forward Deployed AI Engineer · Pre-sales Software Manager

LLM Applications · AI Agents · RAG · Document AI · Full-Stack TypeScript & Python · Data & Analytics

SJC - São Paulo, Brazil (UTC-3) | contact@aikhemist.com | linkedin.com/in/mauro-orlando-b2050410 | github.com/alchemistmao | aikhemist.com
Remote | No visa sponsorship required | Overlaps US and European hours

SUMMARY

Senior software architect and forward deployed AI engineer with 25+ years, who designs and ships production AI applications end to end: LLM apps, AI agents, RAG and document AI. Builds on 20+ years of enterprise data, Business Intelligence, optimization and simulation work for major Latin American companies, including Petrobras, Itaú, Unilever, Pemex, Codelco and Johnson & Johnson. 2nd place in the Dr.DocBench Challenge, an international document-parsing competition at EMNLP 2026. Hands-on in TypeScript, Python, Next.js and Node.js. Reads business problems and the decisions behind them and translates them into data models, clear visualizations and working systems.

CORE SKILLS

AI & LLMs: LLM Applications, Generative AI, AI Agents, AI Agent Orchestration, RAG, Prompt Engineering, Document AI, Document Parsing, OCR, Pipeline Benchmarking & Evaluation, Claude API (Anthropic), Gemini, OpenAI (ChatGPT), ElevenLabs (voice), HeyGen (avatar)

Full-Stack Development: TypeScript, JavaScript, Python, Node.js, Express, Next.js, React, React Native, Expo, Tailwind CSS, Prisma, REST APIs

Data & Cloud Platforms: PostgreSQL, SQL, Supabase, Firebase, Vercel, Railway, Auth0, RevenueCat

Data & Analytics: Data Architecture, Relational Data Modeling, Dimensional Modeling (star schema), Data Warehousing, ETL/ELT, Data Pipelines, Business Intelligence, OLAP, IBM Cognos, IBM DB2, COBOL, IBM Mainframe, Data Visualization

Decision Science: Operations Research, Optimization, Route Optimization, Monte Carlo Simulation, Probabilistic Analysis, Forecasting, Scoring

Architecture & Delivery: Business Analysis, Solutions Architecture, Software Architecture, System Design, Systems Integration, ERP Integration, End-to-End Testing (Playwright), LGPD Compliance, Team Building & Hiring

PROFESSIONAL EXPERIENCE

Head of Technology | Cuidar+

SJC - São Paulo, Brazil (Remote) | Aug 2025 - Present

Company combining behavioral science and AI for well-being at work.

- Lead technology for a three-product AI platform in production: Kairós, Cuidar+ AI Studio and the NR-1 psychosocial risk diagnostic.
- Architected and built Kairós (from Jan 2026), an AI career-transition platform: seven guided phases grounded in behavioral science, real-time LLM-generated content, AI voice (ElevenLabs) and AI avatar (HeyGen); live with active users. Next.js, React, TypeScript, Supabase, PostgreSQL, Prisma, Claude API.
- Built Cuidar+ AI Studio, an app that orchestrates AI agents across business functions, with LinkedIn and Instagram integrations. Next.js, Supabase, Python, Vercel.
- Built the NR-1 psychosocial risk diagnostic and its analytics dashboards (risk bands, alerts, eNPS) for compliance with Brazil's NR-1 workplace regulation; deployed at 2 companies. React, Vite, Node.js, Express, PostgreSQL.
- Built growth tooling for Kairós: Athanor, a free career-diagnostic engine for product-led growth with an admin panel, LGPD compliance and cost guardrails; and a human-in-the-loop Reddit copilot that classifies threads and drafts replies behind an approval queue and hard rate limits.
- Developing Thymos, a mobile-first emotional-intelligence app that extends in-person workshops into 90 days of personalized practice.

AI Engineer & Solutions Architect | AIKHEMIST

SJC - São Paulo, Brazil (Remote) | 2020 - Present

AI product studio and consultancy; AI-focused since 2021.

- Designed, built and deployed 10+ applications, landing pages, data-processing systems and online stores for own products and clients, owning architecture, backend, frontend and deployment.

- DocBench Agents (DocInsights workshop, EMNLP 2026): built a multi-agent system on LangGraph that turns difficult document images into structured Markdown with HTML tables, LaTeX formulas, chemistry notation and reading order: one group of agents analyses errors, proposes and tests improvements and keeps only what wins on a locked holdout, while specialist agents process each page; models chosen per task by cost and quality. 2nd place in the final standings, score 85.83, solo entry. Python, FastAPI, LangGraph, Next.js.
- Kasco AI Store (client contract, 2026): architected the backend and frontend of an AI services store for an industrial computer-vision company, including a usage-and-credits model and end-to-end tested flows (Playwright). Next.js, Node.js, PostgreSQL, Railway.
- FoodScan Pro (own product, live): built a mobile app that scans a food product or ingredient list and returns per-ingredient risk and benefit scores in 5 seconds, with allergy alerts based on WHO, FDA and EFSA references and real-time barcode reading. React Native, Expo, TypeScript, Node.js, Express, PostgreSQL, Auth0, RevenueCat.
- Built LLM products in beta: Numen, conversations with history's great thinkers; and Lapistack, which reads an Instagram Business account and generates a tailored landing page. Next.js, Supabase, Python, Claude API.

Independent BI & Data Consultant | Self-employed

Brazil | 2012 - 2020

- Built Monte Carlo simulation models for food companies; they used the scenarios to decide how to operate and what to sell.
- Designed and built Business Intelligence systems for local companies.
- Delivered data warehouses and ERP integrations for corporate clients as an independent contractor.

Earlier Career

- **IBM, Software Manager:** Optimization software (ILOG) for Latin America.
- **ILOG (now IBM), Software Manager:** Operations research and simulation software.
- **Cognos (now IBM), Services & Pre-sales Manager:** 8 years in Business Intelligence: hired and built teams of developers and analysts, managed project and software development services, and designed BI solutions with business directors and managers (architecture, ETL, OLAP, executive reporting).
- **Early career, 1998-2002 — Origin C&P, HECATON and Axial Informática, Programmer to Software Architect & Project Manager:** COBOL on IBM mainframes with DB2: high-volume systems for large banks (Bradesco, Itaú), manufacturing and retail. Then a team of 20 on Cognos BI projects, including Mastercard.

SELECTED ENTERPRISE PROJECTS (LATIN AMERICA)

- Optimization and decision systems for Petrobras and Itaú: oil-well drilling optimization based on geographic radar data, advanced route optimization for armored cash-transport vehicles, and logistics and supply-chain optimization.
- Monte Carlo simulation systems: thousands of scenarios within client-defined variables, with probabilistic dashboards of the most likely outcomes.
- End-to-end BI architecture and development for Unilever, Pemex, Codelco and Johnson & Johnson: ETL, data cleansing, OLAP models, reporting and executive dashboards.
- High-volume financial data processing, pattern discovery and visualization for banks and insurance companies.
- Clients: Petrobras, Itaú, Unilever, Pemex, Codelco, Johnson & Johnson, Cargill. Countries: Brazil, Mexico, Chile.

RECOGNITION

- Dr.DocBench Challenge, EMNLP 2026 (international, expert-level document parsing): 2nd place in the final standings, score 85.83, solo entry. Invited oral talk and award at EMNLP 2026, Budapest, 29 October 2026: https://drdocbench-challenge.abaka-pages.com/#leaderboard

EDUCATION

MBA, Business Management | FGV - Fundação Getulio Vargas, Brazil

Bachelor's Degree, Business Administration (Systems Analysis emphasis) | FASP, Brazil

Courses | Advanced Business Intelligence | System Architecture | Math Simulation

LANGUAGES

Portuguese (native) | English (intermediate to advanced) | Spanish (intermediate)

Personal | Summited Aconcagua (6,961 m) in 2011: 2 of the 21 who started reached the top.