

MARCO ANTONIO GONZALEZ JUNIOR

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Solutions Architect | Cloud Engineer | Artificial Intelligence Engineer

PROFESSIONAL SUMMARY

Solutions Architect with 15+ years building scalable enterprise systems and 10+ years in AI/ML. Led technical teams delivering solutions that generated 30% revenue increases and 200% improvement in customer retention across fintech, retail, and digital marketing. Currently specializing in generative AI, fine-tuning foundation models, RAG systems, agentic architectures, and AI-assisted development workflows with MCP integrations.

SKILLS

Enterprise Architecture: Domain-Driven Design, Event-Driven Architecture, Microservices, Enterprise Integration Patterns
AI & Machine Learning: Machine Learning, Generative AI, LLMs, RAG Systems, Fine-tuning, Multi-Agent Systems, MLOps, Knowledge Graphs
Cloud & DevOps: AWS/Azure/GCP, Kubernetes, Docker, Terraform, CI/CD Pipelines, Infrastructure as Code
Leadership: Technical Team Management, Cross-functional Collaboration, Technology Strategy, Digital Transformation

EXPERIENCE

Capco São Paulo
Solutions Architect - Artificial Intelligence September 2024 ~ Present
Leading AI-driven legacy modernization initiatives using knowledge graphs and LLMs to transform enterprise COBOL systems.

- Designed intelligent legacy modernization platform using Neo4j knowledge graphs, LangGraph, and AWS Bedrock to automate COBOL application transformation, delivering 85%+ reduction in migration timelines
- Engineered production RAG systems combining semantic search (Elasticsearch, Faiss) and knowledge graphs (Neo4j) to achieve 95% fidelity in preserving business logic during legacy COBOL migration to Java/.NET
- Led team of 8 engineers implementing LLM orchestration frameworks, enabling automated extraction of functional requirements documentation from enterprise-scale legacy systems comprising millions of lines of code
- Standardized deployment using Kubernetes and Terraform, reducing client infrastructure setup from weeks to hours and saving thousands in deployment costs

IBM São Paulo
Senior Solutions Architect July 2022 ~ September 2023
Architected enterprise AI solutions using IBM WatsonX, designing foundation model fine-tuning pipelines and advanced RAG systems with continuous learning capabilities for financial services clients.

- Architected 10+ foundation model fine-tuning pipelines and RAG knowledge bases using WatsonX, PyTorch, and TensorFlow, achieving 85% automated resolution rate and improving customer satisfaction by 25%
- Designed multi-cloud MLOps infrastructure with automated continuous learning pipelines on AWS and Azure, maintaining 99.9% availability while processing 5M+ monthly AI interactions
- Architected multi-dimensional model evaluation framework using BERTScore semantic analysis and human-in-the-loop assessment, achieving 15% higher customer satisfaction and 40% faster resolution times across 10K+ monthly interactions
- Standardized Docker-containerized model deployment with Terraform IaC, enabling 90% faster AI model deployment cycles and maintaining 90%+ task completion rates

banQi São Paulo
Senior Solutions Architect June 2019 ~ July 2022
Led technical architecture and engineering teams at fast-growing fintech startup, promoted from Technical Lead to Principal Engineer, driving system scalability and strategic technical direction.

- Architected microservices platform using Docker, Kubernetes, TypeScript and Go supporting 10x traffic growth, reducing system response times by 65% and achieving 99.95% system uptime
- Built ML-powered fraud detection system with real-time scoring, reducing fraudulent transactions by 40% and false positives by 25%

- Unified system architecture implementing Domain-Driven Design and serverless computing (AWS Lambda, Node.js, TypeScript), establishing technical standards and ensuring alignment with business strategy
- Led adoption of containerization across 15+ applications using Helm, ArgoCD, and GitOps workflows, reducing deployment times by 80% and enabling continuous delivery practices
- Built and managed cross-functional engineering team of 12+ developers, implementing agile practices with GitHub Actions CI/CD and increasing delivery velocity by 45%

Petlove
Tech Lead

São Paulo
May 2015 ~ June 2019

Led technical architecture for Brazil’s largest pet supplies e-commerce platform, driving digital transformation initiatives.

- Architected prime membership platform using Ruby on Rails, Elixir, and PostgreSQL, achieving 30% of monthly revenue (\$2M+) and 500% increase in customer repurchase rate
- Led ERP system modernization using Python and distributed warehouse management, enabling multi-state expansion and supporting 200% business growth
- Built Business Intelligence team of 6 engineers, implementing big data solutions with ETL pipelines that improved inventory forecasting accuracy by 85%
- Designed automated supply chain optimization using machine learning algorithms, reducing procurement costs by 15% and eliminating 90% of stockout incidents

Jüssi
Solutions Architect

São Paulo
November 2012 ~ May 2015

Architected digital marketing automation solutions as Facebook Marketing Partner and Google Partner for enterprise clients.

- Led Facebook Marketing Partner certification, collaborating with Facebook Engineering using GraphQL APIs to deliver marketing automation for biggest e-commerces in Brazil
- Architected Google Ads automation platforms using Java and RESTful APIs, managing \$5M+ monthly ad spend and achieving 40% improvement in ROAS
- Built real-time bidding optimization algorithms using statistical modeling, reducing customer acquisition costs by 25% across 5k+ enterprise campaigns
- Designed scalable attribution platform using message queues and distributed processing, processing 10M+ daily events with sub-second response times

Editora Abril
Senior Software Engineer

São Paulo
September 2008 ~ November 2012

Developed large-scale content management systems for Brazil’s leading media and entertainment publisher.

- Built Veja SP platform using HTML5, CSS3, JavaScript, and MySQL, serving 500K+ monthly users with 99.9% uptime
- Architected enterprise content management system using Java and SOA, supporting 20+ publications and 200+ concurrent editors
- Optimized database performance using advanced SQL queries and caching strategies, reducing page load times by 60% and supporting 10x traffic growth
- Led migration from legacy systems to modern web architecture using agile methodologies, improving development velocity by 75%

PAST EXPERIENCES

Serasa Experian (Java Enterprise Architect), Western Union (Senior Software Engineer), Toyota do Brasil (Software Engineer), Wdotnet Internet (Owner), Flyever Electronics (Software Engineer)

EDUCATION

Faculdade de Informática e Administração Paulista	MBA Data Science (2015 ~ 2016)
Faculdade Impacta de Tecnologia	BSc Information Systems (2011 ~ 2015)
Universidade Federal de São Carlos	BSc Materials Engineering (1996 ~ 2000)

CERTIFICATIONS

AWS: Solutions Architect Professional (2025), Data Engineer Associate (2025), ML Engineer (2024), ML Specialty (2024), AI Practitioner (2024), Solutions Architect Associate (2022), Developer (2022)
Specializations: Stanford Machine Learning and Deep Learning (2024), IBM AI Engineering Professional and AI Developer (2024), Data Science (2015), Recommender Systems (2014)

LANGUAGES

Portuguese: Native	English: Fluent	Spanish: Conversational
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