Marcel Scognamiglio Senra Lourenço

Senior Software Engineer | System Architect | AI & Automation Specialist

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Languages: Portuguese – Native | English – Professional

Professional Summary

System Architect and Software Engineer with 8+ years of experience helping companies deliver impactful digital products through automation, AI, and scalable architecture — across industries such as education, food safety, retail, and online sales. I build systems to make people's lives easier.

I started my career in front-end engineering, which shaped my product mindset and deep respect for the user experience. Later, I transitioned into fullstack and architectural roles, designing platforms end-to-end — from backend orchestration to polished UX using modern frameworks and clean design principles.

I've worked in both global and niche markets, delivering systems that served tens of thousands — and in some e-commerce cases, hundreds of thousands — of users in production. Most recently, I led AI-Driven development inside small, cross-functional squads focused on building secure, clean, human-integrated code alongside AI agents.

I naturally take on the role of an integrator — the one who explores, writes, diagrams, and helps the team navigate complexity with confidence. With a background in journalism, I bring clarity through communication, documentation, and a strong sense of direction that helps teams align and move forward together.

Technical Skills

Languages & Frameworks

- **JavaScript**: Node.js, React, Next.js, Vue, TypeScript - Expert level full-stack development

- **Python**: Backend development, AI integration, automation scripts

- **PHP**: Server-side scripting, web development, legacy system maintenance

- **GraphQL**: API design, data fetching optimization, schema development

- **Rust**: Systems programming (in progress), performance-critical applications

Frontend & UX Tools

- **Figma**: Design systems, prototyping, collaborative design workflows

- **Design Systems**: Component libraries, consistent UI patterns, accessibility

- **Responsive Design**: Mobile-first development, cross-browser compatibility

- **Markdown**: Documentation, content management, technical writing

- **Mermaid Diagrams**: System architecture visualization, workflow documentation

Databases

- **PostgreSQL**: Advanced queries, performance optimization, data modeling

- **MongoDB**: Document databases, aggregation pipelines, schema design

- **Supabase**: Real-time databases, authentication, edge functions

- **Firebase**: Cloud database, real-time sync, serverless functions

Cloud & DevOps

- **AWS**: Lambda, EventBridge, CloudWatch, CodePipeline - Event-driven architecture

- **Docker**: Containerization, multi-stage builds, orchestration

- **Kubernetes**: Container orchestration, scaling, service mesh

- **Vercel**: Frontend deployment, edge functions, performance optimization

- **Netlify**: JAMstack deployment, serverless functions, CI/CD

- **CI/CD**: GitHub Actions, automated deployments, testing pipelines

- **GitHub**: Version control, collaboration, project management

AI & Automation

- **Orkes/Conductor**: Workflow orchestration, business process automation

- **Novu**: Multi-channel notifications, real-time messaging systems

- **n8n**: Workflow automation, API integrations, data processing

- **Trigger.dev**: Background jobs, event processing, scheduled tasks

- **OpenAI API**: AI integration, content generation, intelligent automation

- **AI-based data enrichment**: Smart notification systems, automated decision making

Architecture & Product

- **Event-driven systems**: Scalable, decoupled architecture patterns

- **Microservices**: Distributed system design, service communication

- **API-first design**: RESTful services, GraphQL schemas, documentation

- **AI-embedded agents**: Human-AI collaboration, intelligent automation

- **UX-focused development**: User-centered design, accessibility, performance

- **Modular Component Patterns (MCPs)**: Reusable, maintainable code architecture

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Professional Experience

System Architect | Automation & AI Engineer | FoodReady

Nov 2024 – Present · Remote – Chicago, IL, USA

Architected the evolution of the platform from cron-based scheduling to a fully event-driven infrastructure using AWS Lambda, EventBridge, PostgreSQL, and MongoDB. Introduced AI-powered automation agents for food safety and regulatory workflows using OpenAI API, Orkes/Conductor, and Novu, resulting in smarter and more autonomous operations.

Key Achievements:

- Streamlined backend orchestration with reusable JavaScript/TypeScript workflows, improving consistency and onboarding time across teams

- Led the migration from third-party authentication to a secure, custom-built identity layer with MFA and centralized access control

- Defined architecture principles, versioning strategies, and documentation standards for high-velocity engineering squads

Senior Software Developer | FoodReady

Nov 2023 – Oct 2024 · Remote – Chicago, IL, USA

Developed fullstack features for food safety and compliance tools, with React, Node.js, and TypeScript. Contributed to data pipelines and backend services, focusing on code reliability, observability, and regulatory accuracy.

Key Achievements:

- Partnered with product and design to iterate quickly on user flows, feedback loops, and internal dashboards
- Built scalable data processing systems handling regulatory compliance workflows
- Implemented comprehensive testing strategies ensuring 95%+ code coverage

DevLead (Consultant) | Synthetic Systems

Jan 2023 – Oct 2023 · Remote – São Paulo, Brazil

Technical lead for full-stack monorepo platform (Next.js, GraphQL, MongoDB). Led backend-to-frontend integration with focus on performance and user experience.

Key Achievements:

- Facilitated agile ceremonies, technical planning, and architectural decisions
- Mentored developers and improved team delivery speed significantly
- Implemented performance optimizations resulting in 40% faster page load times

Software Developer | Quero Educação

May 2022 – Nov 2023 · São José dos Campos, Brazil

Developed frontend features for educational marketplace (Vue, Nuxt.js, React, TypeScript). Delivered SEO improvements and Core Web Vitals optimization.

Key Achievements:

- Integrated frontend with backend services (Node.js, Ruby on Rails, PostgreSQL)
- Set up CI/CD pipelines with AWS, Docker, and Kubernetes
- Improved Core Web Vitals scores by 60% through optimization techniques

Co-founder / Full Stack Developer | Agência NÓS

Mar 2019 – Sep 2023 · São José dos Campos, Brazil

Founded the agency to provide web and e-commerce solutions to local businesses. Built full stack apps using WordPress, WooCommerce, Shopify, Webflow.

Key Achievements:

- Led projects using Agile, from prototyping and UX to deployment and optimization
- Delivered 50+ successful projects for local businesses
- Built scalable e-commerce solutions serving thousands of customers

Freelance Software Developer

Jul 2016 – Oct 2022 · Remote

Delivered full stack systems using React, Vue, Next.js, and backend with Node.js. Migrated monoliths to monorepo, implemented SSR, and optimized cloud deployments.

Key Achievements:

- Strong UX sensibility using Figma and design systems
- Successfully migrated legacy systems to modern architectures
- Maintained 98% client satisfaction rate across 100+ projects

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Education

Systems Technology (Associate Degree)

FIAP | *2021–2023*

Focused on modern software development practices, system architecture, and emerging technologies.

BA in Journalism, Philosophy & Technology

FAPCOM | *2009–2013*

Developed strong communication skills, critical thinking, and understanding of technology's impact on society.

Certifications

Recent Certifications (2022-2023)

- **Front-End Engineer** | Codecademy | *May 2023*
- **TypeScript** | Codecademy | *Oct 2023*
- **React Native** | Codecademy | *Nov 2023*
- **Official ChatGPT Course** | Codecademy | *May 2023*
- **Mobile Development** | FIAP | *Jul 2023*
- **MTA: Software Development Fundamentals** | FIAP | *Jul 2023*

Foundation Certifications (2022)

- **Software Design Principles** | Codecademy | *Apr 2022*
- **Vue.js 3** | Codecademy | *Mar 2022*