

RODRIGO AIRES

Software Architect | AI-Native Systems Engineer

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PROFESSIONAL SUMMARY

Hands-on senior software engineer and architect with 20+ years delivering enterprise, financial, compliance, and cloud systems. Deep experience in C#/.NET and Azure-native, event-driven architecture; production integrations with Xero, QuickBooks Online, and Microsoft Dynamics 365 Business Central; and applied AI in real workflows since late 2022. Known for turning ambiguous business needs into dependable systems, modernizing legacy platforms, guiding technical decisions, and using AI-assisted engineering with explicit context, automated testing, release guardrails, and review proportional to risk.

CORE CAPABILITIES

Applied AI: LLM-assisted workflows, document intelligence, model-change evaluation, RAG, embeddings, vector search, prompt pipelines, agentic development, context engineering, guardrails, and responsible release practices.

Cloud & platforms: Azure Functions, Logic Apps, Service Bus, Cosmos DB, Blob Storage, Azure SQL, Entra ID, distributed systems, microservices, event-driven design, reliability, observability, and technical modernization.

Enterprise integration: OAuth 2.0, webhooks, REST/SOAP APIs, queues, asynchronous processing, retries, idempotency, reconciliation, auditability, SFTP, identity, authentication, and authorization.

Product & technical leadership: Architecture direction, end-to-end ownership, technical trade-offs, code and design review, mentoring, stakeholder communication, developer tooling, performance, and cost improvement.

PROFESSIONAL EXPERIENCE

Founder | RodGrid (rodgrid.io) - Independent product

May 2026 - Present

- Founded RodGrid, a real-time product for collaborative architecture design, technical handoffs, and AI-assisted interview workflows. Own architecture, product and technical direction, requirements, constraints, validation, and production acceptance; AI coding agents produce most implementation code under my direction and review.
- Directed development of a collaborative WebGL architecture canvas across services, data flows, queues, providers, and operational boundaries; guided optimization of a 400-node, approximately 570-edge stress board using off-screen culling, idle rendering, and targeted redraws.
- Designed AI-assisted handoff and evaluation workflows that turn architecture context into structured specifications, using explicit project rules, automated verification, and risk-based controls for sensitive authentication, billing, and data-access paths.
- Strengthened operational foundations with live permission checks, one-time invites, documented AI data handling, WAF/DDoS controls, encrypted backups, and end-to-end verification of sensitive user journeys.

Senior Software Engineer | Solution Architecture (functional scope) | Procom - Fredericton, NB (Remote)

May 2022 - Present

- Architected and delivered an Azure-native Accounting Integrations Service connecting internal financial and payroll systems with Xero, QuickBooks Online, and Microsoft Dynamics 365 Business Central through Functions, Logic Apps, Cosmos DB, Service Bus, Entra ID, OAuth 2.0, provider applications, webhooks, and APIs.
- Designed for financial correctness and resilience with idempotent workflows, durable state, reconciliation, traceability, queue-based processing, webhook consumers, automated retries, and centralized production observability, decoupling core systems from provider availability while retaining an auditable event history.
- Architected and built an AI-driven compliance and document-validation platform running in production. Combined a global prompt with rule-based sub-prompts, processed PDF and image content in memory, evaluated documents page by page, and aggregated results to compare employee and candidate records against eligibility rules such as Canadian work authorization.
- Implemented model-change validation against representative documents before prompt or model releases, protecting downstream compliance outcomes from regressions in extraction and interpretation and creating an evaluation pipeline for an individual AI service.
- Evaluated Make, Zapier, n8n, and Workato for early Xero integrations, then built a custom Zapier CLI application in Node.js that reduced task consumption from 12 to 3 per request; the validated event and reconciliation patterns became the foundation of the in-house Accounting Integrations Service.
- Delivered business-critical payroll and finance capabilities including transaction recalculation and pay-side deductions, modernized .NET isolated services, and enhanced document-management and external financial-system integrations.
- Established an AI-assisted delivery workflow built around architectural context, project rules, automated tests, visual and end-to-end navigation checks, release guardrails, and stronger verification for sensitive changes.

EARLIER EXPERIENCE

Senior Application Developer / Data Analyst | Remsoft - Fredericton, NB

Mar 2019 - Feb 2022

- Reduced execution time of large-scale SQL Server ETL pipelines by more than 80% through query re-architecture, indexing, and stored-procedure optimization.
- Architected geospatial and analytical ETL workflows using FME and Python, consuming ESRI feature services to calculate and validate geometry at scale and integrating Azure Blob Storage for secure file ingestion.
- Built an internal cloud-management platform with React, Node.js, and MongoDB to orchestrate and monitor AWS-hosted FME workloads, automate lifecycle management and notifications, and support operational workflows; also extended C#/.NET Core APIs and Entity Framework migrations.

Senior Software Developer | Butterfly Energy Systems - Shediac, NB

Sep 2017 - Aug 2019

- Re-architected and rebuilt applications spanning a Linux-based device and AWS cloud, improving device-to-cloud communication, UI quality, navigation, and user management.
- Migrated AngularJS applications to Angular 2+/RxJS and delivered Node.js, Express, MongoDB, Docker, authentication, and authorization services.

Application Developer | Procom - Toronto, ON

Feb 2016 - Sep 2017

- Modernized a legacy .NET MVC and AngularJS platform and built secure, API-driven recruitment and communication capabilities across database, backend, and frontend layers.
- Implemented token-based authentication and external identity integrations using OAuth 2.0, OWIN, ASP.NET Identity, Web API, CORS, and social identity providers.

IT Project Leader / Senior Web Developer / Consultant | Capgemini - Sao Paulo, Brazil

Jan 2012 - Apr 2015

- Led technical delivery and mentored junior team members across client projects; designed SAP and factory-machine integration systems with event notifications and operational monitoring.
- Modernized enterprise web and payment-calculation systems using .NET, ASP.NET MVC/WebForms, SQL Server, WCF, SOAP, JavaScript, and AngularJS.

Earlier career (2001-2011): Senior development roles in banking, government, and education, including Bradesco, J.P. Morgan/Vastera, and public-sector systems, focused on large-scale applications, SQL Server, ASP.NET, and enterprise integrations.

TECHNOLOGY

AI & data: OpenAI/ChatGPT, Anthropic Claude, Google Gemini, Azure AI Search, Azure Form Recognizer, LangChain, Qdrant, Pinecone, RAG, embeddings, vector stores, Cosmos DB, SQL Server, MongoDB, MySQL, Oracle, FME.

Cloud & integration: Azure Functions, Logic Apps, Service Bus, Cosmos DB, Blob Storage, Azure SQL MI, Azure DevOps, Entra ID, Docker, Kubernetes, AWS EC2/S3/Lambda, OAuth 2.0, webhooks, REST, SOAP, SFTP.

Engineering: C#, .NET Framework/Core/8, ASP.NET MVC/Core, Web API, Entity Framework, TypeScript, JavaScript, Node.js, React, Angular, Python, SQL, HTML/CSS, Git, GitLab, Jira, Confluence, Rollbar.

EDUCATION

Bachelor of Science, AI Engineering / Computer Engineering (in progress) - Western Governors University | Jun 2026 - expected Jul 2027

Postgraduate Diploma, Mobile Application Development - Lambton College, Toronto, Canada | Completed Apr 2016

Diploma, Web Development - Universidade Anhembi Morumbi, Sao Paulo, Brazil | Completed Aug 2005