



Klaus Barkhausen

Principal Software
Architect (.NET)






Cloud & AI

multi-Tenant SaaS

Observability & CI/CD

Miami, Florida

Contact Info

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Expertise

.NET | C# | AI | APIs
Docker | Azure | AWS
JavaScript | Design Patterns
Cloud Architectures | TDD
Microservices | OAuth

Enterprise architect with 20+ years building large-scale .NET platforms and 10+ years leading cloud transformations on Azure (and AWS exposure). Led multi-tenant SaaS, microservices, and event-driven architectures; defined cross-product roadmaps, coding standards, and CI/CD. Deep in performance, resilience, security, and cost optimization; hands-on with code reviews and prototyping. Experienced with AI/LLM integration patterns (Semantic Kernel) to boost engineering productivity and enable intelligent product features. Stakeholder-savvy leader across product, engineering, and operations.

Core Skills: .NET (C#, ASP.NET Core, Web API) • DDD & microservices • Azure (App Services, Functions, Storage, Key Vault) • Containers & Kubernetes • CI/CD (Azure DevOps/GitHub Actions) • Observability (App Insights/Log Analytics, OpenTelemetry) • Event-driven (Service Bus/Event Hubs) • SQL Server, Neo4j, Elasticsearch • OAuth2/OIDC • SLO/SLI, resilience, rate limiting • Cost optimization • AI/LLM integration (Semantic Kernel & AWS Bedrock)

➤ CLOUD ARCHITECTURE, SECURITY, AND NEW TECHNOLOGIES

Extensive expertise in multiple cloud platforms, with deep experience in Microsoft Azure and proven capabilities in AWS. I architect enterprise solutions in Azure and AWS, demonstrating versatility across cloud technologies. My technical foundation includes mastery of the Microsoft .NET ecosystem, microservices, and modern authentication protocols. I design and implement solutions that integrate cloud-native services in top cloud-hosting platforms.

➤ AI INNOVATION AND INTEGRATION

Experienced in AI via advanced prompt engineering to accelerate development and enhance code quality. Expertise using Semantic Kernel and AWS Bedrock, enabling organizations to develop innovative AI-powered applications.

➤ SOFTWARE ARCHITECTURE

16+ years architecting enterprise solutions and microservices transformation with domain-driven design (DDD). Expert in n-tier architecture, design patterns, dependency injection, and automated testing. Proven track record implementing scalable web APIs and distributed solutions.

➤ SOFTWARE DEVELOPMENT

22+ years of experience across industries, including wholesale, retail, healthcare, and e-commerce solutions for brands like Cartier and Ritz-Carlton. Expertise in integrations for inventory, order management, etc. Experience integrating payment systems. Consistently recognized for delivering high-impact solutions.

➤ WEB AND MOBILE PLATFORMS

20+ years creating rich and responsive apps architected w/ ASP.NET NET Core MVC/API backends with RESTful APIs for front ends like VueJs or IOS mobile apps.

➤ ENTERPRISE DATA ARCHITECT

20+ years of architecting/optimizing data across SQL Server, NoSQL, Neo4j, and Elasticsearch services. Expert in high-performance data models & architecture.

➤ PROJECT MANAGEMENT, LEADERSHIP, AND CUSTOMER-FACING EXPERIENCE

18+ years of experience in leading projects with small and medium-sized teams. 20+ years in customer-facing roles working with users and management.

EDUCATION

Nova Southeastern University, Miami, FL
Bachelor's Degree in Business Administration

LANGUAGES

English and Spanish – fluent in both languages



WORK EXPERIENCE / NOTEWORTHY ACCOMPLISHMENTS

Apr. 2014 to Present ***.NET Architect / Cloud and TDD evangelist***

ANTHOLOGY, Boca Raton, Florida

I lead architecture for complex .NET solutions and provide hands-on guidance for major features and platform improvements. I've integrated AI/LLM patterns in .NET (Semantic Kernel, AWS Bedrock, RAG) to prototype intelligent product features and solve complex multi-step processes. I established team best practices—clean, loosely-coupled design, TDD/unit testing, API standards, CI/CD quality gates, and observability (structured logging/tracing). I handle advanced blockers, performance tuning, and code reviews to keep delivery reliable and scalable.

Apr. 2013 to Apr. 2014 ***Sr. Solution Architect & Team Leader***

AVISENA, Miami, Florida

Strengthened the dev team's capabilities and output by improving the architecture of the company's core multi-tenant SaaS and redesigning it using better patterns (clean boundaries, unit-of-work/repository, clearer domain models). Set "golden-path" patterns, led rigorous code reviews, and trained engineers in TDD and SOLID, enabling faster delivery, fewer defects, and consistently higher-quality code.

Mar. 2006 to Apr. 2013 ***Software Development Consultant***

(Self-employed), Miami, Florida

Delivered complex, high-impact solutions fast and cost-effectively, directly tied to customers' business goals. Operated end-to-end—scoping, ROI cases, prototypes, architecture, timelines, and hands-on .NET delivery—while communicating results to executives. Self-sourced engagements and translated business needs into lean, resilient systems. Notable outcomes for Cartier, Aflac, Ritz-Carlton, McAfee, and others.

May 2004 to Mar. 2006 ***Regional I.T. Manager / Sr. Programmer***

RICHEMONT LATIN AMERICA & CARIBBEAN LLC, Miami, Florida

Led end-to-end IT operations for LA&C, owning strategy, budgets, and delivery across infrastructure and software. Directed a cross-functional IT team as a player-coach (PM + senior engineer), instituting lean practices that increased department productivity ~40% while operating with ~30% less budget.

Sept. 2000 to May 2004 ***Sr. Programmer / Project Manager***

DIGITALERA GROUP LLC, Miami, Florida

Conceived, architected, and created a B2B solution for Cartier Latin America to automate their retail operations throughout the region. I gathered requirements, wrote specifications, designed the UI, and created data models. I managed an offshore team to lower costs. I performed code reviews and QA.

Jan. 2000 to Sept. 2000 ***Sr. Programmer / Project Manager***

TRAPEZOID INC., Miami, Florida

I was the lead architect for all software projects and all team members (including offshore teams). Architected and developed various software solutions for numerous start-up organizations and for mid-to-large organizations to improve their operations.

Sept. 1998 to Dec. 1999 ***Sr. Programmer / Oracle DBA***

CHS ELECTRONICS INC., Miami, Florida

I was a senior member of a team that created an Internet E-Commerce solution to serve an existing customer base (4,000+ customers). We developed an extremely successful self-service web-portal which ended up cutting operations costs by more than 60% on almost all customer service activities.