

TOMAS VENERE

Senior Software Engineer | .NET - Azure - AWS - Microservices - AI

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PROFESSIONAL SUMMARY

Senior Software Engineer with 12+ years of experience designing and delivering cloud-native, enterprise-grade systems across healthcare, fintech, and aviation. Proven track record building high-impact platforms including a revenue algorithm generating \$100M+ annually and multi-tenant systems serving 4,000+ provider partners. Deep expertise in full-stack .NET/React development, microservices architecture, distributed systems, secure IAM, and AI integration on Azure and AWS. Consistent record of mentoring engineers, leading cross-functional delivery, and improving system performance, reliability, and deployment velocity.

PROFESSIONAL EXPERIENCE

Heathos | Senior Software Engineer / Architect

Jun 2025 - Present

Healthcare SaaS Platform - 4,000+ Provider Partners, Scaling to 2.5M Patients

- Architected multi-tenant, cloud-native healthcare platform on Azure with per-tenant compute and data isolation, 99.9% SLA; microservices split mapped to team ownership boundaries.
- Leading 3 parallel engineering squads (15 engineers) across front-end, back-end, and infrastructure; each squad owns its domain end-to-end.
- Designed security model from scratch: OAuth 2.0 + SAML for partner SSO, RBAC to the data-row level, secrets rotation via Azure Key Vault, and network isolation with private endpoints - built to pass healthcare-grade compliance audits.
- Automated CI/CD via GitHub Actions + Docker + Kubernetes (AKS); reduced deployment time from ~3 hours to under 20 minutes within the first 6 weeks.
- Redis caching strategy reduced average API response time from 380ms to 90ms on highest-traffic endpoints.
- Full-stack delivery across React front-ends, .NET Core 8 APIs, and Azure microservices; standardized patterns enabling any engineer to ramp up on any service within days.

Investnet | Senior Software Engineer

Jan 2025 - Present

Enterprise Financial Wealth Management Platform - Fintech at Scale

- Contributed to decomposition of a 600,000-line C# monolith into 12 bounded-context microservices over 8 months; release cycles dropped from 3 weeks to 2 days, hotfix time from 4 hours to under 30 minutes.
- Designed and built MassTransit + RabbitMQ/Kafka messaging layer processing 180,000+ financial events/day with saga orchestration, automatic retries, and dead-letter alerting - zero message loss in production since launch.
- Integrated AWS Bedrock and Azure OpenAI for AI-assisted financial advisory features; delivered from prototype to production in 11 weeks, now serving personalized insights for 200,000+ advisor accounts.
- Drove CI/CD improvements using GitLab CI + ArgoCD (GitOps) + Octopus Deploy across EKS clusters; deployment frequency increased from 4 to 40+ deploys/month with zero unplanned outages last quarter.
- Implemented enterprise IAM using Okta + Auth0 for SSO/SAML across 15 partner integrations; contributed to passing SOC 2 review with zero findings.
- Redis caching redesign on portfolio analytics endpoints cut p95 API latency from 620ms to 95ms - largest user-facing performance improvement of the year.
- Mentored 6 engineers; 3 have since been promoted to senior roles.

Vastian | Senior Software Engineer

Jun 2024 - Dec 2024

- Migrated 3 legacy .NET Framework 4.7 applications to .NET Core 8; startup time reduced ~55%, memory footprint down ~40%.
- Designed Docker-based microservices architecture on Azure with Azure Functions + Service Bus; transitioned a single IIS monolith into 8 independently deployable services.
- Built Razor Pages + Blazor UI platform integrating SynCFusion enterprise components; reduced feature delivery time from 2 weeks to 2 days.
- Refactored core domain applying SOLID and Clean Architecture principles; average cyclomatic complexity on key classes dropped from 34 to 8.
- Grew unit test coverage from 11% to 73% in 4 months using TDD; production incidents dropped measurably in the final 6 weeks of the contract.
- Rewrote 4 production SQL queries timing out under load; longest query dropped from 47 seconds to under 2 seconds via restructured joins and targeted indexes.

Alaska Airlines | Senior Software Engineer / Lead Engineer

Jun 2021 - Jun 2024

Aviation Loyalty & Operations Platform - \$100M+ Annual Revenue Impact

- **Owned Award Modernization end-to-end:** designed the core redemption algorithm, led 5 engineers, and coordinated with actuarial and finance stakeholders. Platform now generates \$100M+ in incremental Mileage Plan revenue annually.
- Built and maintained BFF layer handling 4M+ API calls/month with JWT + OAuth 2.0 auth and structured Serilog logging piped into Sumo Logic.
- Delivered Siebel-to-LMS partner migration for 8 airline partners: designed API contracts, built the transformation layer, managed partner communications. Zero post-cutover incidents.
- Designed GraphQL + Redis caching layer for the Mileage Plan member portal; cache hit rate stabilized at 87%, reducing database load at peak booking windows.
- Built Power BI dashboards used by 200+ stakeholders across revenue management, loyalty ops, and executive leadership; replaced 6 manual Excel reports.
- Led GitHub Copilot-assisted refactoring sprint across 4 legacy microservices: cleaned ~38,000 lines of C#, improved test coverage from 22% to 61%.
- Onboarded and mentored 4 engineers; 2 progressed to leading their own feature tracks within 6 months.

Tri-State Memorial Hospital | Software Engineer

2019 - 2021

- Built and owned HL7 v2 messaging middleware in .NET handling ADT, ORM, and ORU message types between EMR, lab, and radiology systems; resolved ~200 silently failing stuck messages in the first two weeks.
- Architected and singlehandedly delivered the full hospital web platform: server provisioning, IIS setup, SQL Server schema, and 150+ pages including patient portals, staff directories, and 3 integrated sub-projects.
- Integrated Logical Ink, Medex, and Create!Forms for digital clinical data capture, eliminating paper intake across 3 departments.
- Administered 4 Windows Server environments (2016/2019), maintaining 99.6% uptime over a full calendar year.

QwickCharge | Front-End Developer

2017 - 2018

- Built responsive React.js UI components integrated with a custom .NET backend; supported Azure-hosted deployment pipelines and environment configuration.

MediaLab VR - Washington State University | VR Developer / NASA Research Contributor

2016 - 2017

- Designed and built interactive VR simulations and educational environments in Unity (C#) featuring 3D physics, dynamic lighting, and immersive interaction systems.
- Contributed to a NASA-affiliated research initiative involving 2D/3D image analysis in Python for aerospace and scientific datasets.

NullPointer.com / TomiWebsites.com (Independent) | Founder

2014 - 2021

- Founded and operated two independent development studios delivering 100+ commercial websites and full-stack solutions for business clients using React, WordPress, Angular, and Svelte, including UI/UX design, backend integration, and hosting. Now operating under NullPointer.com.
- Built and shipped 6+ mobile applications in React Native, Kotlin (Android), and Swift (iOS) for independent clients.
- Provided ongoing VPS, cPanel, Azure, and AWS server support and maintenance across a diverse client base.

TECHNICAL SKILLS

Languages & Frameworks: C#, .NET Core, React, Blazor, Razor Pages, TypeScript, Python, Java, C/C++, Swift, Kotlin, PHP

Cloud & Infrastructure: Azure (Functions, Service Bus, AKS, Key Vault, DevOps), AWS (Bedrock, EKS, Lambda, SQS/SNS, Secrets Manager), GCP, Terraform

Architecture & Patterns: Microservices, Clean Architecture, SOLID, DDD, CQRS/Event Sourcing, BFF Pattern, Zero-Trust, Strangler Fig

DevOps & CI/CD: Docker, Kubernetes, GitHub Actions, GitLab CI, ArgoCD (GitOps), Octopus Deploy, Helm, Azure DevOps

Security & IAM: OAuth 2.0, SAML 2.0, SSO, Okta, Auth0, AWS Cognito, RBAC/ABAC, Threat Modeling, Zero-Trust Architecture

Messaging & Events: MassTransit, RabbitMQ, Kafka, Azure Service Bus, AWS SQS/SNS, Saga Orchestration, Event-Driven Architecture

Databases & Caching: SQL Server, PostgreSQL, MongoDB, Cosmos DB, Redis, NoSQL, Query Optimization, Database Sharding

AI & Data: AWS Bedrock, Azure OpenAI, GitHub Copilot, Power BI, Alteryx, SignalR, ML Pipelines, 2D/3D Image Analysis

CERTIFICATIONS & PROFESSIONAL DEVELOPMENT

Microsoft Security: SC-100: Cybersecurity Architect Expert (2024) | SC-200: Security Operations Analyst (2024) | SC-300: Identity & Access Admin (2023) | AZ-500: Azure Security (2023)

Microsoft Cloud: AZ-305: Designing Azure Infrastructure Solutions (2023)

AI & Development: AI-Powered Apps Certificate (Udemy) | AI Training for .NET Solutions | AWS Bedrock & Azure OpenAI (2024-2025)

Engineering Practices: TDD Best Practices Certificate (Udemy) | Lead Senior .NET - SOLID Masterclass | Master ASP.NET MVC 5 (Udemy) | Code Warrior Security Certificate

Leadership & Agile: PSM II: Professional Scrum Master | Deep Dive Senior Architecture - Azure | MCSA: Windows Server

Security: SecureWarrior Senior Cybersecurity Expert (SCSCE) | SecureWarrior Application Security Champion (SASC)

EDUCATION

Master of Business Administration (MBA)

Online Program - In Progress

2025 - Present

B.S. Computer Science | B.A. Mathematics

University of South Carolina - GPA 3.7+ | Dean's List

2015 - 2017

B.A. Computer Science

Lewis-Clark State College - GPA 3.7+ Award

2017 - 2019

LANGUAGES & ADDITIONAL

Languages: English (Native) | Spanish (Native) | French (Conversational)

Background: Former ATP-ranked professional tennis player, Top 10 nationally and ATP-ranked 1000 worldwide. The discipline and competitive mindset from professional sport translates directly into engineering: iterate fast, perform under pressure, and commit fully to continuous improvement.