

Anthony Tristan

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Summary

Senior Software Engineer with extensive experience designing scalable platforms, APIs, and cloud-enabled systems in healthcare, insurance, government, and enterprise environments. Proven expertise building modern C#, .NET, Python, and JavaScript applications while modernizing legacy systems and designing high-reliability data pipelines. Experienced in healthcare interoperability including HL7 messaging, FHIR-style resource modeling, EDI healthcare transactions, and healthcare ETL pipelines. Strong background in AI integration, system architecture, and leading engineering initiatives across distributed teams.

Core Technical Skills

- **Web Development Wizardry:** Crafted and conjured web apps and intranets with ASP.NET MVC, jQuery, Bootstrap, and a touch of Angular magic.
- **Data Maestro:** Mastered the art of data migration, ETL, and database design with SSIS/SSRS and SQL Server (Oracle doesn't scare me either).
- **AI Apprentice:** Currently delving into the fascinating realms of artificial intelligence, machine learning, and chatbot development.
- **Jack of All (Tech) Trades:** Proficient in C#, JavaScript, VB.NET, Python, and a smattering of other languages.
- **Operations Guru:** Experienced in managing servers (IIS), streamlining development operations, and leading knowledge transfer initiatives.
- **Problem-Solving Extraordinaire:** Debugged complex issues, mentored junior developers, and delivered projects under pressure – all with a smile.
- **Languages:** C#, Python, JavaScript, SQL, VB.NET, Java
- **Frameworks:** .NET, ASP.NET MVC, Entity Framework, React, WPF/MVVM, Bootstrap, jQuery
- **Cloud:** Microsoft Azure, Azure AI Foundry, AWS
- **Databases:** SQL Server, Oracle, Neo4j
- **DevOps & Tools:** Git, TFS, Jira, CI/CD pipelines, IIS
- **AI & Automation:** LLM integrations, AI chatbots, workflow automation, Azure AI services Healthcare Interoperability: HL7 v2 messaging, FHIR resource modeling concepts, EDI 834/835 transactions, healthcare ETL pipelines, eligibility/enrollment data processing

Personal Projects

CryptoQT - San Antonio – September, 2025 to Present

Situation: I set out to build an automated cryptocurrency trading platform capable of analyzing market signals and executing trades using real-time financial data.

Task & Action: I designed and implemented a Python-based platform integrating multiple APIs including market data providers and exchange platforms while developing data pipelines and experimenting with AI-driven trading models.

Result: The system now aggregates market intelligence from multiple sources and provides a foundation for automated strategy testing and AI-assisted trading decisions.

XpertConnect - San Antonio – January, 2025 to Present

Situation: I initiated the development of a scalable expert-connection platform designed to connect users with specialized professionals through a modern web and mobile interface.

Task & Action: I architected and developed a multi-layered application using React, Expo, and Tailwind while implementing CI/CD pipelines, managing development environments, and integrating AI capabilities using Microsoft Azure Foundry.

Result: The platform architecture enables scalable deployment across web and mobile environments while supporting AI-powered features that enhance user interaction and platform intelligence.

HautePix - San Antonio – August, 2024 to Present

Situation: I launched HautePix to explore how artificial intelligence could streamline software development workflows and accelerate product delivery.

Task & Action: I led development of a multi-layered platform using C# while managing development operations, coordinating a small team of developers and analysts, and integrating AI-assisted tooling into the development process.

Result: The platform improved development productivity and established a foundation for AI-assisted engineering workflows and mobile application development.

Professional Experience

Automated Integration Technologies – Software Engineer (Contract) | 2025

Situation: The organization needed secure integration between healthcare systems and the eClinicalWorks platform while expanding into AI-enabled customer engagement tools.

Task & Action: I built a middleware integration layer in C# and Python that handled OAuth2 authentication, REST APIs, and healthcare data exchange while implementing AI chatbot capabilities using Azure Foundry and Azure Search services.

Result: The integration platform enabled reliable connectivity with eClinicalWorks and introduced AI-driven support capabilities that improved operational efficiency and automation.

Baytek International – Software Engineer (Contract) | 2023–2024

Situation: The organization required modernization of legacy LIMS systems and improved developer knowledge transfer across teams.

Task & Action: I wrote SQL and VB.NET code to enhance data processing systems while helping define the migration strategy from PHP applications to .NET Core architecture.

Result: The modernization roadmap improved maintainability of the system and enabled the organization to plan a scalable migration toward modern frameworks.

Southwest Research Institute – Senior Software Engineer (Contract) | 2023

Situation: The Division 10 portal required maintenance, modernization planning, and operational stability improvements.

Task & Action: I developed C# and SQL enhancements, maintained the portal architecture, and contributed to the strategy for migrating the platform to .NET Core while managing development workflows with Git and Jira.

Result: My improvements increased system reliability and established a clear path for modernization of the portal platform.

State of Texas – Office of the Governor – Software Engineer | 2022–2023

Situation: The Texas Economic Development Portal required ongoing feature development and operational support for statewide programs.

Task & Action: I developed backend services and SQL data structures while maintaining application workflows and ensuring reliable data processing across the portal.

Result: My work supported continued operation of the portal and improved the reliability of economic development data services.

USMR – Software Engineer (Contract) | 2022

Situation: The organization needed enhancements and operational stability for internal software systems and ticket workflows.

Task & Action: I developed SQL and C# updates while managing source control and issue tracking across Mercurial repositories and SIMS workflow systems.

Result: My improvements increased maintainability of the software and streamlined issue resolution processes.

LexisNexis – Software Engineer (Contract) | 2021–2022

Situation: LexisNexis required engineers to support specialized legal data processing systems using proprietary languages.

Task & Action: I developed code in the KELS language and maintained repositories using Git while working within Jira-driven development workflows.

Result: My contributions supported continued delivery of legal data products and improved processing reliability.

Texas Alcoholic Beverage Commission (ProCom Consulting) – Software Engineer | 2020–2021

Situation: The agency required modernization and support for internal regulatory applications.

Task & Action: I developed .NET MVC applications using C#, SQL Server, HTML5, and Bootstrap while mentoring junior engineers on development best practices.

Result: The improvements enhanced maintainability and improved development team productivity.

Energy Transfer – Software Engineer (TriQuest Contract) | 2019–2020

Situation: Legacy Silverlight applications required modernization to maintain long-term supportability.

Task & Action: I migrated applications to WPF and MVC architectures while managing repositories through Git and TFS and coordinating with stakeholders during iterative development cycles.

Result: The migration significantly improved application performance and positioned the systems for continued support.

Hourglass Systems – Software Engineer | 2019

Situation: The healthcare benefits platform required reliable generation of enrollment transactions for insurers.

Task & Action: I enhanced the C# codebase responsible for generating EDI 834 enrollment documents and improved debugging and repository workflows.

Result: My improvements increased the reliability of benefits data transmissions between insurers and partner systems.

USAA — Senior Software Engineer (TekSystems Contract) | 2018–2019

Situation: USAA needed to reduce high call-center volume related to internal technical support while maintaining secure execution of internal diagnostic utilities used by employees across the organization.

Task & Action: I designed and implemented a C# automation framework that enabled users to securely execute diagnostic and support tools directly through web links without requiring ActiveX controls, using controlled privilege elevation and automated execution orchestration within the platform.

Result: A proof-of-concept utility built on the framework reduced support call volume from ~50,000 calls per month (~\$27 per call) to fewer than 20 calls monthly, demonstrating the potential to eliminate significant operational support costs while improving self-service capabilities.

Providence Risk & Insurance - San Antonio, TX - May, 2017 to April, 2018

Situation: The organization needed improved system integrations and automated data pipelines to support insurance operations.

Task & Action: I engineered ETL pipelines in Pentaho and implemented API integrations including mapping services while supporting healthcare data workflows aligned with HL7-style messaging patterns.

Result: The solution streamlined operational reporting and improved reliability of integrated systems.

FCE Benefit Administrators - San Antonio, TX - April, 2016 to April, 2017

Situation: The benefits administration platform required modernization and more efficient healthcare eligibility processing.

Task & Action: I developed MVC web applications and built SSIS ETL pipelines capable of processing healthcare eligibility data including EDI 834 enrollment transactions.

Result: The automation significantly reduced manual processing and improved scalability of benefits administration systems.

(Contract) KForce (Capital Group) - San Antonio, TX - January, 2016 to March, 2016

Situation: A complex insurance claims adjudication engine required knowledge transfer and long-term maintenance improvements.

Task & Action: I led knowledge transfer efforts while developing C# and SQL enhancements and building SSIS migration packages to support enterprise data workflows.

Result: My work stabilized the platform and enabled multiple teams to maintain and extend the system.

(Contract) TekSystems (Tesoro) - San Antonio, TX - August 2015 - December 2015

Situation: The company was developing a healthcare technology platform requiring enterprise architecture and technical documentation suitable for patent submission.

Task & Action: I designed system architecture, data repositories, and integration workflows while modeling healthcare data exchange concepts aligned with HL7 and emerging FHIR resource models.

Result: The architecture supported patent documentation and established a scalable foundation for healthcare interoperability.

DSA — Senior Software Engineer | San Antonio, TX | Jan 2015 – Aug 2015

Situation: The organization required a scalable web-based learning management system (LMS) capable of delivering training content and tracking learner progress across enterprise users.

Task & Action: I designed and developed the back-end and middle-tier architecture in .NET while building the underlying SQL database repository and integrating TinCan (xAPI) and Rustici Engine APIs to support standards-based learning content delivery.

Result: The platform enabled reliable course delivery and learner activity tracking while providing a scalable architecture for future LMS enhancements.

B.E.A.T. (U.S. Army – Fort Sam Houston) — Senior Software Engineer (Contract) | San Antonio, TX | Aug 2014 – Dec 2014

Situation: The organization required improved reporting and data visibility across operational systems supporting military training and program management.

Task & Action: I developed and maintained SSRS reports, wrote complex SQL queries and stored procedures, and managed relational database data structures to support reporting and analytics requirements.

Result: The reporting solutions improved data accessibility and enabled stakeholders to make faster operational decisions based on accurate system data.

Avanade - San Antonio, TX - April 2012 - August 2014

Situation: A complex insurance claims adjudication engine required knowledge transfer and long-term maintenance improvements.

Task & Action: I led knowledge transfer efforts while developing C# and SQL enhancements and building SSIS migration packages to support enterprise data workflows.

Result: My work stabilized the platform and enabled multiple teams to maintain and extend the system.

SkyeHealth - San Antonio, TX - August 2011 - April 2012

Situation: The company was developing a healthcare technology platform requiring enterprise architecture and technical documentation suitable for patent submission.

Task & Action: I designed system architecture, data repositories, and integration workflows while modeling healthcare data exchange concepts aligned with HL7 and emerging FHIR resource models.

Result: The architecture supported patent documentation and established a scalable foundation for healthcare interoperability.

Trinity Millennium Group — Senior Software Engineer | San Antonio, TX | Jun 2010 – Aug 2011

Situation: The organization needed a scalable solution to migrate legacy COBOL-based datastore systems into modern relational database platforms without requiring manual schema reconstruction.

Task & Action: I engineered an automated code and data migration framework that parsed COBOL data structures using custom language grammars, extracted data elements, and generated relational database schemas and migration logic capable of targeting multiple RDBMS platforms.

Result: The framework enabled automated modernization of legacy data systems, led to the company pursuing a patent for the technology, and I was recognized with the organization's Developer of the Year award.

WellMed Medical Group - San Antonio, TX - August 2009 - June 2010

Situation: WellMed required improved data integration between healthcare systems and internal operational platforms.

Task & Action: I developed C# applications and SQL migration scripts while implementing healthcare data exchange workflows aligned with HL7 integration practices.

Result: The integrations improved reliability of patient and operational data exchange across systems.

Valero Energy Corp — Associate HRIS Analyst | San Antonio, TX | Jun 2007 – Jul 2009

Situation: Valero required reliable support and ongoing enhancements for high-usage enterprise HR systems responsible for critical functions including payroll tax processing, employee onboarding, training management, and performance reviews.

Task & Action: I developed and maintained integrations and web applications using Classic ASP.NET, VB.NET, C#, SQL Server, Teleo APIs, and SAP HR Portal, while implementing data migration processes, designing reusable frameworks, and supporting SOX-compliant financial and HR workflows.

Result: My work improved reliability and maintainability of mission-critical HR systems used across the enterprise while ensuring compliance with regulatory and internal audit requirements.

Southwest Business Corporation — Associate HRIS Analyst | San Antonio, TX | Aug 2006 – May 2007

Situation: The organization required development and modernization of internal business and mortgage servicing systems supporting refinance processing and home loan management.

Task & Action: I developed applications using **VB.NET, ColdFusion, and SQL**, contributed to **Lotus Notes-based systems**, and implemented my first **N-layer application architectures** to improve separation of concerns and maintainability across internal platforms.

Result: The systems improved internal processing of mortgage refinance and loan management workflows while establishing more maintainable application architecture patterns for future development.

Valero Energy Corp — Associate I/S Analyst | San Antonio, TX | Jun 2004 – Aug 2006

Situation: Valero required ongoing development and support for enterprise internal applications used across business and operational teams.

Task & Action: I developed software using **C#, VB.NET (.NET 1.1), VBA, and SQL Server**, building internal tools, automating workflows, and supporting relational database management for enterprise systems.

Result: My contributions improved operational efficiency and reliability of internal business applications while strengthening the organization's early adoption of Microsoft .NET development technologies.

Education

- *O.W. Holmes H.S., San Antonio, TX - High School Diploma*
- *San Antonio College, San Antonio, TX - Associate of Applied Science in Network Administration*
- *University of Phoenix, Phoenix, AZ –Bachelor of Science in Information Technology*
- *St Mary's University, San Antonio, TX –Masters in Computer Science (unconferred - 15 hrs completed)*

Links

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