

TAYLOR COOL

Senior Full Stack Developer | Python & Event-Driven AWS Systems | AI-Assisted Engineering

Las Vegas, NV | (307) 220-4233 | taylor.bryce.cool@gmail.com | Remote Eligible

SUMMARY

Senior Software Engineer and Architect with 6+ years across Python, C#, and TypeScript ecosystems, specialized in healthcare data integration and AI-assisted engineering. Designed and built an event-sourced, queue-driven ETL pipeline that scaled processing volume 250% while holding error rate below 0.5% and giving the team full auditability and safe step-by-step retry. Daily, hands-on user of AI coding tools (Claude, Aider, Ollama) for both greenfield development and legacy code modernization, with a clear, practical point of view on where these tools help, where they fall short, and how to use them responsibly in regulated environments.

TECHNICAL SKILLS

Backend & Architecture: Python (Django, Flask), event-driven & queue-based pipeline design, event sourcing / auditability patterns, C# (.NET Core), VB.NET, RESTful & internal APIs

Cloud & Infrastructure: AWS (Lambda, S3, EC2), Azure (Functions), Docker, CI/CD, DevOps, Redis, PostgreSQL, MongoDB

AI & Emerging Tech: LLM Integration (Claude, OpenAI), Agentic Coding Workflows (Aider, Claude Code-style tools), Local Orchestration (Ollama), Multimodal Vision (VLM/OCR), AI-assisted legacy code modernization (VB.NET), Google AI Studio

Languages & Frameworks: TypeScript, JavaScript, Node.js, React, SQL, VB.NET

Tools & Platforms: Vercel, GitHub, GitLab, Git, Crestron Programming

SELECTED PROJECTS

- **Event-Sourced Medical Bill Intake Pipeline:** Architected a queue-based ETL system where each processing stage (intake, preprocessing/metadata enrichment, OCR, validation) hands off through its own queue, giving the team a full auditable state history, the ability to pause and inspect any stage, and safe, isolated retries without reprocessing the whole bill. Built specifically to work around a slow, legacy (c. 2000) SQL Server that couldn't handle synchronous load. Added a preprocessor queue mid-flight to fold in client metadata files ahead of OCR as system scope grew, with no disruption to the rest of the pipeline.
- **Medical Bill VLM/OCR Platform:** Architected a custom Vision-Language Model (VLM) pipeline for high-accuracy data extraction from complex medical billing forms, reducing manual review overhead and increasing throughput.
- **Multimodal AI Meal Planner:** Developed a full-stack application using computer vision to analyze food photography for automated nutritional analysis and personalized recipe generation.

PROFESSIONAL EXPERIENCE

Director of Data Integration Services (Hands-on Architect)

2024 – Present

CompIQ Solutions

- Architected and deployed a queue-based, event-sourced ETL pipeline for medical bill intake, driving a 250% increase in processing volume within 6 months while keeping error rate below 0.5% at scale.
- Designed the system's stage-by-stage queue architecture specifically to isolate and audit failures caused by a legacy, high-latency SQL Server, enabling targeted retries instead of full reprocessing.
- Extended the pipeline with a new preprocessor queue to ingest client metadata ahead of OCR, demonstrating the system's ability to absorb new processing stages as scope grew.
- Use AI coding tools daily (Claude, Aider, Ollama) to read, explain, and safely refactor legacy VB.NET code that the team otherwise struggles to parse, shortening the time from “what does this do” to a confident, tested change.
- Collaborated with Product and Compliance teams to define requirements and technical roadmaps for internal and external API consumers in a regulated (healthcare) environment.
- Managed departmental task assignments and mentored direct reports on engineering best practices, coding standards, and responsible use of AI-assisted development.

Software Developer

2021 – 2024

CompIQ Solutions

- Led development of the BMMS API, a client implementation platform for medical bill review, using Python and .NET services.
- Onboarded and mentored junior developers, streamlining training on complex medical billing systems, including legacy VB.NET components.
- Standardized engineering observability by documenting code philosophy and system architecture on the internal wiki.

Lead Front End Developer

2019 – 2021

GetDocsNow.com

- Directed development of “Symphony,” a full-scale redesign of the GDN document marketplace.
- Aligned technical roadmaps with business objectives through weekly executive strategy sessions.

Software Developer

2018 – 2019

Code Distillers LLC

- Developed secure file-sharing tools for sensitive client documents using touch panel user interfaces.
- Completed a specialized one-year Crestron programming curriculum in under 6 months.

EDUCATION

- Lambda School – 9-month Immersive Full Stack Program
- Casper College – A.A. Communications - Multimedia