

# Eric Ryan Bowser

Full Stack Software Engineer | Cloud Architecture Enthusiast

[GitHub](#) | [LinkedIn](#) | [Portfolio](#)

## Professional Summary

Experienced Full Stack Software Engineer with 10+ years of expertise in C#/.NET development, modern web technologies, and cloud architecture. Specializing in WPF/MVVM desktop applications, high-performance API integrations, and React.js component development. Currently expanding expertise in cloud technologies through AWS and CompTIA certifications while developing innovative applications in AI automation and cloud study tools.

## Core Technical Skills

### Languages & Frameworks

- Backend: C#/.NET Core 8.0, ASP.NET Core Web API, ASP.NET MVC, Node.js, Express.js
- Frontend: React.js, JavaScript/TypeScript, HTML5/CSS3, Tailwind CSS, Bootstrap
- Desktop: WPF/XAML, MVVM Architecture, Windows Forms

### Cloud & Azure Services

- Azure Expertise: App Service, Azure Functions, Azure Storage, Azure SQL Database, Cosmos DB, Azure DevOps, Key Vault, Application Insights
- CI/CD & DevOps: GitHub Actions, Azure DevOps Pipelines, TeamCity, Octopus Deploy
- Containerization: Docker for consistent development-to-production deployments, deployment automation scripts

### Security & Infrastructure

- Authentication & Authorization: JWT token management with public/private key cryptography, Auth0 OAuth2/OIDC integration, Bearer token authorization patterns
- Infrastructure & Deployment: NGINX reverse proxy and load balancing, DNS configuration and IP routing, SSL/TLS certificates with Cloudflare management
- Secure Credential Management: Environment variables (.env), Azure Key Vault, secure API design practices, Email services with Google Authentication and SendGrid

### Databases & Data

- SQL Server (advanced T-SQL, query optimization, performance tuning), PostgreSQL, Cosmos DB, MongoDB
- Entity Framework Core with LINQ, Dapper, advanced indexing and execution plan analysis, Stored Procedures, User-Defined Functions, Table-Valued Parameters

### Tools & Methodologies

- RESTful APIs, Microservices Architecture, OpenAPI / Swagger
- Git/GitHub, Azure DevOps, Cake Build
- Tooling development for automation, monitoring, and reporting
- Agile/Scrum, SOLID Principles, Design Patterns, TDD, xUnit, Jest, React Testing Library

## Professional Experience

### Visible Supply Chain (Maersk)

Supply Chain / Integrations Specialist | Feb 2023 - Dec 2023

Performance-Critical Full-Stack System Integration & Modernization

#### Full-Stack Architecture & Framework Modernization

- Migrated .NET Standard 4.61 hybrid application to .NET Core 7.0, optimizing for Azure deployment
- Architected scalable microservices for external carrier system integration (USPS, FedEx APIs)
- Implemented secure authentication, error handling, and Key Vault integration for shipping operations
- Designed and deployed RESTful Web APIs with comprehensive error handling and circuit breaker patterns

#### Cloud Database Migration (On-Premises to Azure)

- Architected and executed complex migration from on-premises PostgreSQL Server to Azure Cosmos DB
- Designed optimized data schema for NoSQL document storage while maintaining application compatibility
- Implemented secure connection strings and authentication with Azure Key Vault
- Validated data integrity and performance across migration with zero downtime deployment
- Improved query performance and scalability leveraging Cosmos DB's distributed architecture

### **Performance Optimization & Database Tuning**

- Reduced API response times by 40% through strategic in-memory caching and LINQ query optimization
- Analyzed SQL Server execution plans, created optimized indexes, and tuned long-running queries
- Built optimized T-SQL stored procedures with Table-Valued Parameters for high-volume data processing
- Decoupled monolithic architecture using composition patterns and dependency injection for improved maintainability

### **High-Throughput Integration & Monitoring**

- Built multithreaded processing system for concurrent carrier API requests with retry logic and resilience patterns
- Integrated NLog for comprehensive application monitoring and SQL Server failure tracking
- Implemented Azure DevOps CI/CD pipelines for automated testing and deployment

## **Willis Towers Watson**

*Full Stack Software Engineer | 2016 - Aug 2022*

*.NET Core Modernization, Cloud Database Migration & Enterprise React Architecture*

### **Full-Stack Application Modernization**

- Led migration of multiple legacy .NET applications to .NET Core, modernizing infrastructure and improving performance by 30%
- Managed Entity Framework Core implementations with advanced LINQ queries for optimal query performance
- Maintained strict backward compatibility while implementing secure coding practices across the stack
- Reduced page load times through performance profiling and optimization of database queries

### **Enterprise API Development & Integration**

- Architected and built RESTful Web APIs with Microsoft Identity, Auth0, and JWT authentication for secure inter-service communication
- Implemented Bearer token authorization and comprehensive API documentation using Swagger/OpenAPI
- Developed automated testing suites ensuring feature parity and security across deployments
- Created reusable API patterns following SOLID principles for consistency across microservices

### **Frontend Component Architecture**

- Developed enterprise-wide React.js component library with TypeScript for UI consistency across applications
- Created 50+ reusable components using Bootstrap and React-Bootstrap with comprehensive documentation
- Established coding standards and best practices for component development reducing development time by 25%
- Implemented TypeScript for type safety and improved maintainability

### **Performance Monitoring & Reliability**

- Utilized SumoLogic for comprehensive troubleshooting, performance monitoring, and system insights
- Implemented SQL Server profiling and query optimization, creating strategic database indexes for performance gains
- Maintained GitHub source control with TeamCity builds and Octopus Deploy CI/CD pipelines

## **Independent Software Developer & Cloud Architect**

*Jan 2024 - Present | Full-Stack Development, Cloud Certification & AI Integration*

## **CloudPrepper - Cloud Certification Study Platform**

- Architected and developed comprehensive full-stack study application for CompTIA Cloud+ and AWS certifications
- Built React.js frontend with flashcard system, practice exams, and progress tracking using Tailwind CSS
- Implemented spaced repetition algorithm for optimal learning retention with advanced analytics
- Developed RESTful API with Node.js/Express and PostgreSQL for secure user progress tracking
- Containerized with Docker for consistent development-to-production deployments

## **AI Assistant Platform Suite**

- Architected multi-AI platform integrating OpenAI, Google Gemini, and Anthropic Claude APIs
- Developed Node.js/Express backend with secure API management and real-time streaming responses
- Built React frontend with TypeScript for robust, maintainable code and optimal performance
- GitHub: Frontend (<https://github.com/ericbowser/AssistFront>) | Backend (<https://github.com/ericbowser/Assist>)

## **Pet ID Tags - Full-Stack Application**

- Designed and built complete full-stack application for smart pet ID tags with QR code generation
- Architected PostgreSQL database schema for efficient pet profiles and owner contacts
- Implemented JWT-based user authentication and secure profile management systems
- Created Docker containers for consistent development and production deployment

## **Portfolio Website & Containerized Email Backend**

- Developed modern, responsive portfolio website showcasing projects and technical expertise at [erb-think.com](http://erb-think.com)
- Built containerized Node.js/Express backend using Docker for email service reliability and scalability
- Implemented secure email delivery with Google Authentication and SendGrid integration
- Demonstrates production-grade microservices architecture separating frontend from backend services

## **Key Differentiators**

### **Full-Stack Problem Solving**

- 10+ years of proven ability to design, develop, and maintain mission-critical full-stack applications
- Deep expertise in performance optimization: 40% API response improvement, SQL query tuning, database indexing
- Experience with scalable microservices architecture and secure coding practices across platforms
- Skilled in troubleshooting complex technical issues across the entire stack

### **Security - Infrastructure Excellence**

- Implemented enterprise-grade authentication (JWT, Auth0) and secure API authorization patterns
- Designed and deployed production-ready infrastructure: NGINX load balancing, DNS routing, SSL/TLS certificates
- Built containerized applications with Docker for consistent, scalable deployments
- Managed infrastructure from application security to infrastructure security, demonstrating Sr. level depth

### **Cloud-Native Development**

- Hands-on Azure expertise: App Service, Functions, Storage, SQL Database, Key Vault, DevOps pipelines
- Proficient with multiple CI/CD platforms (GitHub Actions, Azure DevOps, TeamCity, Octopus Deploy)
- Experienced with microservices architecture and RESTful API design for enterprise systems
- Demonstrated adaptability across evolving DevOps landscapes

### **Technical Versatility & Architecture**

- Full-stack capability: .NET Core/C# backend, React/TypeScript frontend, database optimization
- Tooling development for automation, monitoring, and reporting systems
- Strong foundation in both object-oriented and functional programming paradigms

### **Enterprise Experience**

- Proven track record modernizing legacy systems while maintaining business continuity
- Experience in high-throughput, mission-critical applications requiring peak performance
- Ability to work with complex external integrations (carrier APIs, multiple data sources, third-party services)
- Demonstrated success in cross-functional Scrum/Agile environments

## **Certifications & Professional Development**

### **In Progress (Exam dates: November 2025)**

- CompTIA Cloud+ (CV0-004) - Demonstrates hands-on cloud architecture and deployment expertise
- AWS Certified Solutions Architect - Associate (SAA-C03) - Validates cloud design and infrastructure skills

### **Education**

Weber State University - Bachelor of Science, Computer Science (2011-2014) | Concentration: Software Engineering & Network Security

*References available upon request*