

Quinntyne Brown

Senior Software Engineer · Architect

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SUMMARY

Senior .NET / Angular engineer with 15+ years building enterprise and mission-critical software systems. Currently delivering safety-critical ground software for the Canadarm3 space program, leading backend architecture across Event Sourcing, telemetry schemas, and flight message serialization. Builds AI-powered developer tooling using Ollama APIs to drive measurable quality improvements. Active security clearance and a proven track record designing end-to-end platforms across aerospace, financial services, automotive, and healthcare domains.

Microsoft Certified Solutions Developer (MCSD) | Active Security Clearance

CAREER HIGHLIGHTS

- Improved mission-critical application performance by more than 100% and serialization throughput by 1000% on the Canadarm3 space program
 - Led a team of 6 replacing a millions-of-lines-of-code legacy platform serving dozens of enterprise clients with a modern ASP.NET Core + Angular web platform
 - Built LLM-powered code review tooling that increased code review volume by 20% and measurably improved code quality
 - Served as technical point of contact for 5–7 teams (~30 developers) at Corus Entertainment, and as the cross-team integration SME on the Canadarm3 program
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TECHNICAL SKILLS

Languages: C#, Java, TypeScript, JavaScript, SQL

Backend: .NET / ASP.NET Core, Web API, Entity Framework, Event Sourcing, WCF

Frontend: Angular (7–17), React, RxJS, NgRx, Chart.js, HTML5, CSS3, SASS, Accessibility (WCAG)

Databases: SQL Server, Couchbase, CosmosDB, PostgreSQL

Testing: Playwright, Jest, Vitest, Jasmine, Karma, BenchmarkDotNet, TDD, Page Object Model, Performance Testing, Acceptance Testing

Cloud & DevOps: Azure, AWS, Docker, Kubernetes, Azure DevOps, GitHub, Jira, Confluence

Architecture: Event Sourcing, CQRS, Microservices, Service-Oriented Architecture, Actor Model, Serverless

Security: OWASP (trained at Cetaris and Corus Entertainment)

AI & Automation: Ollama API, AI-assisted code review tooling, prompt engineering; currently studying for Azure AI certifications

Messaging & Protocols: WebSockets (SignalR), Redis Pub/Sub, MessagePack, CCSDS, NASA cFS

PROFESSIONAL EXPERIENCE

Senior Consultant — MDA (Canadarm3 / GERS Ground Software)

November 2022 – Present | Safety-Critical Aerospace Software

Architecture & Platform

- Stabilized and modernized a message-driven .NET ground software platform for the Canadarm3 program, introducing SOLID design patterns, dependency injection, and standardized configuration and logging practices across multiple teams
- Architected the Mission Planning Software backend using Event Sourcing with C# and Couchbase, delivering complete audit history and version control for mission-critical operations
- Architected the messaging infrastructure using Redis Pub/Sub, designing publishers, subscribers, a channel naming strategy, and testing fakes — leadership that kept a critical feature on track
- Designed the Project Data Model — a code generator backed by hundreds of flat JSON files, with custom parsers that validate and hydrate a data context modeled after EF Core, plus a migrations system modeled after EF Core, producing message definitions for C++, C#, and TypeScript across Flight and Ground Software teams
- Built a high-performance C# serializer converting big-endian CCSDS flight messages from NASA cFS systems into strongly typed application models used platform-wide, and built prototype dashboards using React to explore alternative frontend approaches

Performance & Testing

- Implemented performance tests using Playwright and Chrome DevTools Protocol (CDP) that drove decisions improving application performance by more than 100%, and used BenchmarkDotNet to benchmark serialization, achieving 1000% throughput improvements
- Introduced end-to-end testing with Playwright (Page Object Model), promoted Jest and Vitest unit testing, and led design of backend acceptance test harnesses and boundary-interface test patterns for microservices

AI & Technical Leadership

- Built code review tooling leveraging the private enterprise Ollama API, increasing the volume of code reviews by 20% and measurably improving overall code quality
- Documented system design with PlantUML and C4-style architecture diagrams; served as a cross-team SME for integration and ground software design discussions, and interfaced with Cyber Security during security audits

Tech: C#, .NET, TypeScript, Angular, React, Couchbase, Redis, SignalR, Playwright, BenchmarkDotNet, Docker, Kubernetes

Senior .NET / Angular Consultant — AppCentrica

March 2022 – July 2022

- Migrated a Cordova application from Android 6 to Android 10, researching and upgrading complex Java-based plugins to restore platform compatibility
- Developed and maintained Java components within the mobile application stack

Tech: Cordova, Java, Android

Senior Angular Consultant — Protiviti (Contract)

December 2021 – March 2022

- Developed reusable Angular 11 component libraries integrated with ASP.NET Core APIs and OAuth2 authentication

Tech: Angular 11, TypeScript, ASP.NET Core, OAuth2

Fullstack Developer — RBC Ventures (MoveSnap)

September 2020 – December 2021

- Leveraged as the Angular subject matter expert on a team of 5–7 developers, architecting the entire frontend of a public-facing Angular web application using NgRx for state management
- Translated Figma designs from the design team into pixel-accurate, responsive Angular components and pages
- Led the team in establishing development standards and PR review practices, improving frontend development velocity by an estimated 10%
- Drafted reference architecture documentation adopted by the development team

Tech: Angular, NgRx, TypeScript, ASP.NET Core, PostgreSQL, AWS

Senior Fullstack Developer — AutoTrader.ca

September 2019 – August 2020

- Assigned to a dedicated team focused on the highest ROI features and bug fixes, delivering all work within estimates
- Built public-facing web components and APIs using Angular, TypeScript, and C# for one of Canada's largest automotive marketplaces
- Analyzed and improved ad delivery performance and viewability metrics

Tech: Angular, TypeScript, C#, Web API

Software Engineer (Lead) — Comsense

August 2017 – September 2019

- Led a team of 6 in architecting a new web platform to replace a millions-of-lines-of-code legacy Windows application serving dozens of enterprise clients — a complex construction door pricing, cost calculation, and project management system

- Solved complex concurrency scenarios inherent to the domain's multi-user project management workflows
- Built dynamic dashboards, a UI framework, and reusable component libraries using Angular and ASP.NET Core
- Presented architecture recommendations directly to the CTO and senior leadership
- Validated architectural decisions through POCs using ASP.NET Core, Azure Functions, Azure App Services, Service Fabric, and the Actor Model (Orleans)
- Built UI components and dashboards using Kendo UI; used Azure DevOps for CI/CD and project management

Tech: ASP.NET Core, C#, Angular, Azure Functions, Azure App Services, Service Fabric, Orleans, Kendo UI, Azure DevOps

Architect — Corus Entertainment

November 2015 – August 2017

- Served as the technical point of contact for 5–7 development teams (~30 developers), breaking down product feature requests into technical stories across WordPress, Drupal, .NET, and TypeScript platforms
- Established web architecture best practices and led educational lunch-and-learn sessions on Angular, RxJS, TDD with Jasmine/Karma, and ES6; trained in OWASP security practices
- Built public-facing features and an internal CMS using Angular, TypeScript, and Web API

Tech: Angular, TypeScript, .NET, Web API, WordPress, Drupal

Senior Front End Engineer — CETARIS

December 2014 – November 2015

- Served as the frontend subject matter expert on a team of ~20, architecting enterprise fleet management solutions used by Fortune 500 companies using AngularJS, TypeScript, and Web API
- Designed training plans to upskill developers on modern frontend technologies and frameworks; trained in OWASP security practices

Tech: AngularJS, TypeScript, Web API

EARLIER EXPERIENCE

- **Morneau Shepell / Digiflare** — .NET and Angular delivery roles, including architecture work on Shomi.com for Rogers Media (2013–2014)
 - **Canadian Heart Research Center** — Led development of 4–5 clinical trial web applications managing data for hundreds of patients and thousands of metrics, coordinating with dozens of stakeholders (2011–2013)
 - **Maritz Canada / Optima Communications** — Business systems, reporting, and enterprise .NET / SQL development roles (2008–2011)
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COMMUNITY LEADERSHIP

City Lead (Volunteer) — FaithTech Toronto

2026 – Present | Global Technology Community

- Lead the Toronto FaithTech chapter, bringing together technologists, designers, product thinkers, church leaders, nonprofits, and community partners to use technology for meaningful impact
 - Recruit and support local volunteers, coordinating cross-functional teams across development, design, product, and delivery
 - Host community gatherings, meetups, and events, and build partnerships with churches, nonprofits, sponsors, and tech organizations
 - Connect real community needs with practical technology solutions through FaithTech initiatives such as Create
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EDUCATION

- **IT Management Certificate, Level II** — Ryerson University
- **IT Management Certificate, Level I** — Ryerson University