

Thomas McMullen

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Professional Summary

Software engineer with 2+ years modernizing .NET and React systems. Builds testable service layers and APIs, refactors legacy data access, and ships changes with unit and integration coverage.

Professional Experience

CACI - NASA Software Engineer I

Houston, TX · March 2026 – Present

- Implemented service-layer logic for a **.NET 10 MVC** app and REST API that NASA software teams use to document command and telemetry messages across module versions.
- Consolidated duplicated versioning logic into a shared base class and added **version locking**, so published module versions can't be modified and teams can pull the exact documentation for the version they run.
- Refactored tightly coupled creation logic into **3 Strategy** implementations resolved by a **factory**, enabling dependency injection and maintainable unit tests.
- Cut XML data-product generation time **87%** by replacing a multi-LEFT-JOIN query with targeted **Entity Framework Core** queries and identity resolution, eliminating cartesian explosion.
- Maintained **100%** unit and integration test coverage with **xUnit** and **Moq** across the service and data-product layers.

Travel + Leisure Co. Software Engineer I

Orlando, FL · January 2025 – March 2026

- Modernized a legacy Web Forms youth sports housing platform to **.NET 9, React**, and **Entity Framework Core**.
- Replaced a **100+ parameter** stored-procedure update with step-specific event setup endpoints.
- Wrote a design doc, presented it to the PM and technical account managers, and delivered the approved redesign on schedule.
- Used Claude Code to write implementation plans, speed up coding and reviews, and produce docs and diagrams for stakeholders.
- Simplified a compensation API with mutually exclusive parameters into a single **polymorphic** endpoint, backed by strategies for **4 compensation models**.
- Implemented **JWT** authentication with Okta **MFA** and **role-based authorization**, including support-staff impersonation, entity switching, and S3 resource-level checks.
- Served as required approver for production PRs, reviewing **3–4 PRs weekly** and catching security issues, bugs, and standards violations before release.

Travel + Leisure Co. Software Engineer Intern

Orlando, FL · Summer and Fall 2024

- Co-led a React proof of concept for modernizing a legacy Web Forms and Razor platform, which engineering leadership approved to move the full modernization forward.
- Modeled the legacy application as a graph in Python to define page structure for the POC and prioritize pages.

Technical Projects

Immunodom

University of Florida · Fall 2024

- Independently built a full-stack application for a University of Florida immunology professor to submit sets of peptides and predict how they interact, using **React, TypeScript, Java, and Spring Boot**.
- Replaced manual CSV analysis by integrating the NetMHCpan API to visualize binding affinity across HLA alleles, with sortable, searchable results saved to MongoDB Atlas and deployed on **AWS EC2**.

Education

University of Florida, Gainesville, FL

B.S. in Computer Science, Minor in Mathematics - December 2024

Skills

- **Languages:** C#, TypeScript, JavaScript, Java, Python, SQL
- **Backend / Frontend:** .NET, ASP.NET Core, EF Core, Spring Boot, React, Next.js, REST APIs
- **Cloud, Data & Tools:** AWS, SQL Server, MongoDB, Docker, Git, Jenkins, Okta, Splunk, xUnit