

# Alex McGarity

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## PROFESSIONAL SUMMARY

Software engineer with 2 years of professional .NET experience building production systems for NASA. Ships end-to-end - from REST APIs handling thousands of daily transactions to an open-source Roslyn analyzer published on NuGet. Strong in C#.NET, Entity Framework Core, and CI/CD automation.

## CORE COMPETENCIES

C# / .NET

Entity Framework Core

REST API Design

SQL Server

Roslyn Analyzers

CI/CD Automation

## WORK EXPERIENCE

### CACI International (NASA Johnson Space Center)

Jul 2024 - Sep 2025

Software Engineer | Houston, TX

- Designed and maintained full-stack C# / .NET applications with Entity Framework over SQL Server, supporting NASA's Lunar Gateway Data Production Environment.
- Optimized REST APIs handling thousands of daily transactions, improving throughput **20-30%** through EF Core query tuning and endpoint refactoring.
- Implemented secure OAuth / SAML authentication; supported GitLab CI/CD pipelines and biweekly release cadence aligned with Artemis milestones.
- Achieved **100% line coverage** across 50+ system modules in compliance with NASA / JSC standards.

### Sam Houston State University

Jan 2022 - Sep 2022

Web Developer | Huntsville, TX

- Built interactive UI components in JavaScript / HTML / CSS, increasing user engagement **20%** and reducing page load times **15%** through optimization and debugging.

## PROJECTS

### CodeArena

Full-Stack Competitive Coding Platform. Built a full-stack competitive coding platform (React + Go + PostgreSQL) with real-time WebSocket verdicts, a sandboxed C++17 judge (fork/exec, setrlimit), and an Angular 21 admin panel - deployed on Fly.io via Docker. **61 / 61 Go tests** covering handlers, store unit tests, and mock judge; JWT HS256 auth with per-user submission history..

[GitHub](#) · [Live](#)

### EFCoreLint

Open-Source Roslyn Analyzer. Shipped a public NuGet package with 3 Roslyn diagnostic analyzers and paired code fixes that catch EF Core anti-patterns at compile time; **22 / 22 tests** passing. Built on Microsoft.CodeAnalysis (netstandard2.0) using semantic-model analysis (ITypeSymbol, GetConversion); GitHub Actions auto-publishes tagged releases to nuget.org..

[GitHub](#) · [NuGet](#)

### Materialist

Flutter Cross-Platform App. Built a Flutter / Dart app for construction material verification with Firebase Firestore real-time backend, reducing human error **40%** and improving site efficiency **70%**. Deployed to Firebase Hosting with Google Sign-In, SPA routing, and internationalization for English, Hindi, Tamil, and Urdu..

[Live Demo](#)

## EDUCATION

### B.S. Software Engineering - Sam Houston State University

Graduated with Honors

GPA 3.7

## CERTIFICATIONS

Google AI Essentials - [Google](#)

2026

Claude Code in Action - [Anthropic](#)

2026

## SKILLS

**Languages:** C#, Python, Go, JavaScript/TypeScript, SQL, Dart, C++, HTML/CSS

**Frameworks:** .NET, ASP.NET, Entity Framework Core, Roslyn, React, Angular, Flutter, Firebase

**Tools:** Git, GitHub Actions, GitLab CI/CD, Docker, NuGet, PostgreSQL, SQL Server, WebSockets, OAuth / SAML, Agile