

# Elliott DuCharme

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## Skills

**Languages:** TypeScript, C#, SQL, Java, C++, Python

**Technologies:** React, .NET, Next.js, Tailwind, NUnit, Godot

**Soft Skills:** Adaptable, Innovative, Self-motivated, Tenacious

## Work Experience

### Software Engineer

KBR

Sioux Falls, SD

June 2023–Present

- Rebuilt ReactTS apps and components for global famine prediction, preparation, and management.
- Optimized map viewers, reducing page load times by 90+% and improving reliability.
- Built CI/CD pipelines with automated testing to accelerate deployment and improve code reliability.
- Enabled humanitarian organizations to make faster, data-driven decisions, directly supporting famine prevention efforts across Africa and beyond.

### Software Engineer Intern

Daktronics

Remote

May 2022–May 2023

- Tested new software and hardware versions for digital signage using Azure DevOps.
- Escalated and tracked critical defects, ensuring rapid fixes and minimizing downtime.
- Implemented new features in Orion, a large-scale C# web app for test automation, increasing automated test coverage and accelerating delivery for multiple product lines.

## Projects

### MemoryMosaic

[github.com/ellman12/MemoryMosaic](https://github.com/ellman12/MemoryMosaic)

- A Blazor app for storing a lifetime of photos and videos in PostgreSQL.
- Gained extensive experience with media metadata and creating/optimizing web apps and databases.
- Libraries can scale into the millions with no performance issues.

### WingTech Bot Rewrite

[github.com/ellman12/WingTechBot](https://github.com/ellman12/WingTechBot)

- Rewrote and modernized a C# Discord bot used by a community of 40+ members.
- Deployed with Docker on AWS EC2, integrating RDS for scalable, persistent storage.
- Added reaction tracking, karma, games, and inside jokes.
- Features LLM-powered AI chatbot using Google Gemini.
- Practiced test-driven development using NUnit with comprehensive unit and integration tests.

## Education

Dakota State University

Madison, SD

B.S. Computer Science, Magna Cum Laude

August 2020–May 2023