

Dan Miller

SOFTWARE ENGINEER · LIFELONG LEARNER · GAME DEVELOPER

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“Be the change that you want to see in the world.”

Summary

Senior software engineer at financial startup Dispute.com and founder of game development studio Fraculation LLC. I have 9 years of professional experience and have been writing code since 2010. My experience is varied, starting with full stack development in C# and Angular across both AWS and Azure, then teaching myself real-time application development in C# and Rust, most recently leading development of a real-time financial dispute resolution platform built with C# and dotnet core.

Currently learning Vim and Rust. Expert in C#, dotnet core, Typscript, Unity, and Terraform.

Skills

Backend

- C#, dotnet core
- SQL, Entity Framework
- Rust, Axum, HTMX
- Test Driven Development
- Python, NodeJs

Frontend

- Angular, React
- Typscript
- Jasmine, Jest, Karma
- Cypress
- RxJS, NgRX

DevOps CI/CD

- Github Actions
- Terraform, Docker
- AWS SDK
- Jenkins
- Azure Devops

Work Experience

Dispute.com

Milwaukee, Wisconsin (Remote)

SENIOR/LEAD SOFTWARE ENGINEER

Feb. 2023 - Present

- Architected and developed secure, scalable systems resulting in 90% reduction in time spent on manual intervention in the core data pipeline.
- Onboarded and led a team of 3 developers towards a culture of communication and excellence.
- Introduced Auth0 for client authentication and authorization, automated management via Terraform.
- Created extensible system to manage integrations with CRMs and Chargeback Protection platforms (Konnektive, Sticky, Ethoca, Verifi)
- Developed ingestion pipelines for unreliable data providers, decreasing the the need for manual intervention by 80%.
- Created CI/CD pipelines in GitHub Actions which deployed applications via Terraform and released internal shared Nuget and NPM packages.
- Skills: C# • Github Actions • Rust • App Service • Sql Server • Durable Functions • Application Insights • Entra Id/AAD

Fraculation LLC

Milwaukee, Wisconsin

GAME DEVELOPER, OWNER

Sep. 2021 - Present

- Implemented a true-to-life Mendellian genetics system which faithfully recreates Punnet Square outcomes using C#.
- Built an ECS system to simulate over 10,000 3D enemies and projectiles in realtime at >60FPS as part of a tower defense game.
- Created open-source libraries leading to a 60% reduction in code duplication across game jams. Addressing common needs such as Math, Save system, Logging, Scriptable variables, Leaderboards, and Unit Testing
- Used Async/Await to manage game and UI logic with a Task-based asynchronous pattern (TAP) in Unity.
- Built leaderboard API in Rust using Axum, Serde, HTMX, Sqlx, and Tokio.
- Autogenerated C# API from an OpenAPI specification with openapitools for use in Unity.
- Skills: Unity • C# • Rust • Real-time parallel algorithms • Data-oriented Design • ECS • DOTS • Jobs • Burst Compiler

Flite Golf & Entertainment

Milwaukee, Wisconsin (Remote)

UNITY IMPLEMENTATION SPECIALIST

Sep. 2022 - Feb. 2023

- Provided company-wide guidance on C# and Unity best practices as the resident Unity expert.
- Reduced build times by 20% restructuring project code into assembly definitons, enabling faster iteration times.
- Introduced unit tests to an untested codebase.
- Introduced Azure Application Insights to capture logs across all facilities and deployments, decreasing time collecting logs in the field by 73%.
- Managed client relationships with the owner and employees of Luxe Golf, which hosted our applications.
- Led towards a culture of documentation by creating standardized test cases, a knowledge base, and an onboarding guide.
- Skills: Unity • C# • QA Process Improvement • Azure App Insights

Centare (Milwaukee Tool, One Key)

Milwaukee, Wisconsin

AWS CLOUD ENGINEER

Jan. 2021 - Jun. 2021

- Used CQRS and Event Sourcing to build an ETL pipeline from Sql Server into Elasticsearch, ingesting millions of positional data points per day
- Learned AWS Lambda and the Kinesis Consumer Library in Python to build a serverless data pipeline
- Skills: Python • Terraform • Docker • C# • AWS Lambda • Dynamodb • Kinesis

Centare (Symplr Cactus)

FULL STACK ANGULAR DEVELOPER

- Modernized existing web applications into Angular Single Page Applications.
- Onboarded two offshore teams to work inside the new project ecosystem.
- Mentored junior team members through pair programming and code reviews.
- Skills: Angular • Typescript • RxJS • Cypress • C# Web API • Agile

Milwaukee, Wisconsin

Sep. 2019 - Dec. 2020

Centare (API Healthcare)

CLOUD ENGINEER, ANGULAR APPLICATION DEVELOPER

- Converted legacy C# on-premise modules to run on the Azure cloud.
- Managed automated build and deployment in Jenkins.
- Worked on Time and Attendance software used by hospitals across US and Canada.
- Documented and led design decisions for Angular applications.
- Onboarded new team members to support Angular applications by creating a knowledge base and one-on-one mentoring

Milwaukee, Wisconsin

Aug. 2017 - Sep. 2019

Brady Corporation

IT DEVELOPMENT INTERN

- Created bespoke implementation of the Observer pattern for use in an AngularJS application.

Milwaukee, Wisconsin

Jun. 2015 - Dec. 2016

MSOE

B.S. IN SOFTWARE ENGINEERING

Milwaukee, WI

Sept. 2012 - May 2017