

Paul Hazelton

Full Stack .NET Software Developer III

Full Stack, C# .NET developer with over 4 years of professional full-stack experience using C#, .NET, Blazor, CSS, EF Core, SQL, and PostgreSQL. I have a passion for type safety, elegant code, and intuitive user interface design. I've been loving programming for 11 years.

Experience

-  Chestnut Health Systems

Now | 2024

 - Software Developer III**
1 year 5 months, ongoing
 - As a Software developer III, I continued to work as a full stack developer using C#, .NET, and Blazor, and started working on the LIME and Mosaic projects. I collaborated with my Senior colleagues on architecture design, led spec gathering meetings, added front-end and back-end features, fixed bugs, created unit tests and integration tests, and created documentation.
 - LIME is an ambitious, modular, data driven, Blazor Server application that allows users to create complex screeners and reports using a GUI, which can then be used as a collection of NuGet packages in conjunction with a REST API to provide common features as a service to many similar screening applications. The solution leverages PostgreSQL with code-first entity framework core data migrations, the REST APIs use the ASP.NET Minimal API system, and the front-end is a Blazor Server app, and uses Blazor to provide components for the consuming client applications.

2024 | 2022

 - Software Developer II**
1 year 7 months
 - Collaborated with 2 other Senior developers to create and architect Screen4Success, a Blazor Server web application. After the initial creation of it, I became the project lead and sole developer for Screen4Success. I met with the clients, gathered specs, created mockups, and continued as the sole developer leading to the full production release. Later a newly hired senior developer joined the project and I onboarded them, teaching them the system using documentation I wrote.

2022 | 2021

 - Software Developer I**
1 year 7 months
 - Maintained and contributed to GAIN-ABS, a legacy MVC web application using Entity Framework Core (among various other projects). Worked along side senior developers to plan, design, and implement new front-end and back-end features. Diagnosed, fixed, and tested various bugs.

 Undergraduate Research Experience

2020

 - Disease Treatment Research for INBRE**
5 months, completed
 - Summer research project with the goal to analyze treatment options for HIV. Developed and analyzed systems of differential equations. Co-developed a differential equations solver and optimal control algorithm using Mathematica.
 - Work resulted in a paper published in the ***Mathematical and Computational Applications*** journal, titled [Optimal Control of an HIV Model with Gene Therapy and Latency Reversing Agents](#).

2019

 - Graph Theory Research for INBRE**
5 months, completed
 - Summer research project with the goal to explore the Ramsey Number of a family of graphs. Developed a simple tool for manipulating and analyzing graphs, and worked with my colleagues to discover new Ramsey numbers for graphs.
 - Work resulted in a paper published in the ***Discrete Applied Mathematics*** journal, titled [On Ramsey and star-critical Ramsey numbers for generalized fans versus \$nK_m\$](#) .

 Bloomington, IL (remote)


- ## Education
-  Winthrop University

2021 | 2017

 - B.S. in Computer Science & B.S. in Mathematics**
4 years
 - Double major, President's List, Magna Cum Laude. Getting a double major in 4 years was very challenging, but it was worth it, I love learning. In the limited free time I had outside of school work, I worked as a tutor for math and computer science classes.

 Rock Hill, SC

Technical Skills

Languages

 - C# / .NET 5 years
 - HTML & CSS 11 years
 - TypeScript 1 year
 - JavaScript & jQuery 4 years
 - SQL 3 years
 - PostgreSQL 1 year
 - C++ 4 years
 - Java 2 years
 - Rust learning

Web Frameworks

 - Blazor 4 years
 - React 1 year
 - MVC 1 year

Back-End and Security

 - EF Core 4 years
 - REST APIs 4 years
 - Auth0 1 year
 - Azure AD B2C 2 years

Communication

 - Spec Development 3 years
 - Documentation 5 years

Personal Projects

Now
|
2022

- **Recoil (2D Video Game)**

3 years, ongoing

Recoil is a 2D platformer where your character can only move by using the recoil of their gun. Recoil is made in C# using the MonoGame framework. I am the sole developer, I've done all the programming, game design, art work, sounds effects, and writing.

2023

- **Responsive GUI for MonoGame**

6 months

Responsive GUI for MonoGame is a GUI NuGet package that can be used with the MonoGame framework in order to create GUIs in a similar fashion to using HTML and CSS. The rendering engine is custom made, and started as an experiment to see if I could replicate a browser's rendering engine. The Layout class allows you to position elements using most of the same functionality available in css, allowing you to easily create game menus that work on many differently sized screens. Features include: flexbox, automatic sizing, nine-slice frames, sprite animation, fonts, colors, and many other styling abilities.

[You can view this project on my GitHub.](#)

2025

- **8 Bit Computer Made in Digital Logic Sim**

1 month

I created a custom 8 bit programmable computer, complete with an assembly programming guide in [Digital Logic Sim](#), a digital logic simulator created by Sebastian Lague. I am very enthusiastic about learning how computers work, and I was enchanted by Sebastian Lague's videos, so I decided to try making my own 8 bit cpu. It is of course very limited, but I've programmed it to run a simple Fibonacci program.