Matthew Radtke

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Personal Profile

A strong work ethic with a passion for solving problems, I am a high achieving software developer who seeks to do things with high standards and accountability. My education and experience from web development to computer graphics have shown me that there are no problems that I cannot solve. I am a fast learner who seeks to understand the latest best practices and methodologies, and I am eager to explore new challenges.

Education

Trinity College Dublin *Dublin, Ireland*

MSc in Computer Science *September 2022 – August 2023*

With Distinction

University Of Wisconsin - Madison *Madison, WI*

BS in Computer Science *September 2016 – December 2019*

GPA: 3.5

Work Experience

Miller Electric *Appleton, WI*

Sitecore Developer *January 2020 – Present*

- Worked with digital marketing team members to implement front and backend features onto the Public Websites in a Sitecore C# Environment
- Troubleshooted and created solutions for various issues with the Public Websites via ticketing system
- Developed tools to integrate and synchronize product information for multiple companies across multiple environments
- Developed C# API endpoints to integrate with Public Website needs such as registering products for customers

Miller Electric *Appleton, WI*

Web Developer Intern *May 2018 – January 2020*

- Rebuilt outdated internal applications with C in .net core and MVC to be more accessible by users and maintainable by developers
- Built custom full stack applications from scratch for assisting order validation and shipping in C#

Skills

Programming Languages C#, JavaScript, jQuery, SQL, Java, C++, C, Python

Programming Skills Computer Graphics Optimization, Machine Learning, MVC, Web Development, Unit Testing, Test Driven Design

Tools Unity, Unreal Engine, OpenGL, Sitecore, Git, Linux, bash, SSMS, Powershell, SQL Server, Entity Framework, Linq, SKLearn

Projects

Gesture Recognition and Interaction in Augmented Reality *Unity, C#, Python, SKLearn*

Master's thesis focused on hand gesture interaction based on recognition of static hand poses in AR. Trained and compared machine learning models from selected features for pose recognition. *Github Repo*

VR Art Gallery *Unity, C#*

VR Art Gallery implemented with a team of 8 members using Extreme Programming. Features include the ability of creating and joining multiplayer sessions, load existing art gallery presets, interact with DALL-E API to generate AI art based on the users voice, and the ability to draw in the art gallery. *Youtube Demonstration*

Minecraft C++ OpenGL *C++, OpenGL*

A Minecraft clone created in C++ OpenGL with a team of 2. Challenges included structuring world into manageable data structures to efficiently render the world. Optimizations include frustum and distance culling, and a delta data structure to store the world changes. Used value noise to generate terrain. *Github Repo*

C++ Object Relational Mapper *C++, sqlite*

A custom tool that reads from a sqlite database file and generates C++ files and classes programmatically, mimicking the functionality of Entity Framework. This allows a C++ program to interact with and modify a sqlite database via object oriented programming. *Github Repo*