

# Matthew Radtke

📞 920-250-2480 | ✉️ [mradtke9019@yahoo.com](mailto:mradtke9019@yahoo.com) | 🌐 [github.com/mradtke9019](https://github.com/mradtke9019) | 🔗 [linkedin.com/in/mradtkewisc/](https://www.linkedin.com/in/mradtkewisc/)

## Education

### Trinity College Dublin

MSc in Computer Science

Dublin, Ireland

September 2022 – August 2023

### University Of Wisconsin - Madison

BS in Computer Science

GPA: 3.5

Madison, WI

September 2016 – December 2019

## Work Experience

### Miller Electric

Sitecore Developer

Appleton, WI

January 2020 – Present

- Worked with digital marketing team members to implement front and backend features onto the ITW Welding 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 and maintained a console label application to assist with warehouse operations
- Developed C# API endpoints to integrate with Public Website needs such as registering products for customers

### Miller Electric

Web Developer Intern

Appleton, WI

May 2018 – January 2020

- Rebuilt outdated internal applications in a modern language to be more accessible by users and maintainable by developers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, React

### Programming Skills

Computer Graphics, Optimization, Machine Organization, Web Development, Unit Testing

### Tools

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

## Projects

### AR Gesture Recognition

Unity, C#, Python

Master's thesis focused on recognizing gestures captured by the HoloLens 2 AR device. Engineered features based on captured hand data were used to train a variety of machine learning models to recognize the pose of a hand. A series of poses captured in a specific order for a specific duration can be defined to trigger events, e.g. a fist then a palm captured in that order would send a fireball.

[Github Repo](#)

### VR Art Gallery

Unity, C#

VR Art Gallery implemented in Unity and C# with a team of 8 members. 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++ with a team of 2. Used OpenGL as the graphics library. Challenges included structuring world into manageable data structures to efficiently render the world. Optimizations include a lightweight frustum culling, distance rendering, and a delta data structure to store the world changes. Used value noise to generate terrain procedurally.

[Github Repo](#)

### C++ Object Relational Mapper

C++, sqlite

A console application that reads from a sqlite database file and generates C++ files and classes programmatically. This allows a C++ program to interact with and modify a sqlite database via object oriented programming.

[Github Repo](#)