

Skills	Programming Languages   Libraries and Frameworks   Development Tools		
	C# (7 yrs.)	.NET (4.0 - 4.5)	Visual Studio (2010 - 2015)
	C++ (2 yrs.)	XNA (4.0 - 4.0 Refresh)	Unity 3D 4.x/5.x
	GLSL (Familiar)	Modern OpenGL (3.3+)	Git
	Python (Familiar)	Flask	SourceTree
		Vulkan (familiar)	Vim

**Selected Projects** *Splattershmap* - Lead Effects Programmer

Splattershmap is a Shoot 'Em Up game built in WebGL and Canvas. In Splattershmap the player leaves a trail of paint as they play, resulting in images that resemble Jackson Pollock's paintings. I designed and implemented the paint system. <http://splattershmap.rit.edu>.

*OfCourse* - Contributor

OfCourse is a course website framework that was written in Python using the Flask library. OfCourse is currently being used in RIT's Humanitarian Free and Open Source Software Culture Course. I worked on the Participants page for OfCourse which scrapes students blogs for posts. OfCourse is part of the FOSS@MAGIC program which is sponsored by RedHat. <https://github.com/ryansb/ofcourse>.

*MINX*

MINX is a C++ Game Development Framework. MINX makes it easier to create 2D games in C++ using an API that is similar to Microsoft's XNA Framework. MINX currently runs on Windows and Linux. I created the graphical backend for MINX and designed the API endpoints. <https://github.com/GearChicken/MINX>

*OpenGL Water Demo*

A demo written in C++ and OpenGL that renders water. The waves are based off of scrolling displacement map textures. The demo includes a photo of pebbles with refraction to better demonstrate the effect of the waves. The water in this demo is looks best when used as a background detail or with a minimal wave amplitude. <https://github.com/liam-middlebrook/opengl-water>

**Work Experience** *NVIDIA Linux Graphics Intern*

May 2015 - August 2015

Worked on implementation of the next-gen Vulkan Graphics API.

*MAGIC Research Fellow*

March 2014 - Present

Worked on BlockyTalky. I implemented the Servo Motor Block and assisted in implementing an interface for remotely controlling the BlockyTalky through a webapp.

*Kids On Campus Instructor*

July 2014 - August 2014

Worked with students from grades 9 - 12. Over the course of two weeks each session of campers learned how to use the Unity3D engine. The campers were taught how to create scripts for Unity in C#.

*Kids On Campus Assistant Instructor*

July 2012 - August 2013

Assisted in teaching students from grades 9 - 12 how to create games. They used Microsoft's XNA Framework in C# and learned about different Object Oriented Programming Concepts.

**Education***Rochester Institute of Technology*

August 2013 - Present

*B.S. Game Design and Development*

3.7 GPA

**Activities**

Election Night Hackathon 2014, FOSS@MAGIC, Game Developers Conference 2015, Global Game Jam 2014, Homestretch Hackathon 2013 - 2014, Imagine Cup Hackathon 2013 - 2014, Local Hack Day 2014, National Civic Day of Hacking 2014, Software Freedom Day 2014