

Skills	Programming Languages	Libraries and Frameworks	Development Tools / Other
	C# (7 yrs.)	Vulkan	Visual Studio (2010 - 2015)
	C++ (4 yrs.)	Modern OpenGL (3.3+)	Git
	Python3 (2 yrs.)	Flask	Vim
	GLSL (Familiar)	Postgres	GNU/Linux
Work Experience	<b>NVIDIA Linux Graphics Intern</b>		May 2016 - August 2016
	Worked on implementation Vulkan Direct to Display components of VK_DISPLAY_KHR.		
	<b>NVIDIA Linux Graphics Intern</b>		May 2015 - August 2015
	Worked on implementation of the next-gen Vulkan Graphics API.		
	<b>MAGIC Research Fellow</b>		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.		
	<b>Kids On Campus Instructor</b>		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#.		
Selected Projects	<b>Splattershmup</b> - Lead Effects Programmer		
	Splattershmup is a Shoot 'Em Up game built in WebGL and Canvas. In Splattershmup 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. <a href="http://splattershmup.rit.edu">http://splattershmup.rit.edu</a> .		
	<b>OfCourse</b> - 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. <a href="https://github.com/ryansb/ofcourse">https://github.com/ryansb/ofcourse</a> .		
	<b>MINX</b>		
	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. <a href="https://github.com/GearChicken/MINX">https://github.com/GearChicken/MINX</a>		
	<b>OpenGL Water Demo</b>		
	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. <a href="https://github.com/liam-middlebrook/opengl-water">https://github.com/liam-middlebrook/opengl-water</a>		
Shipped Titles	<b>Quake II RTX</b> - Linux Platform Support		June 2019
	A fork of Quake II, fully remastered with path-traced graphics and a variety of other enhancements. <a href="https://store.steampowered.com/app/1089130/Quake_II_RTX/">https://store.steampowered.com/app/1089130/Quake_II_RTX/</a> <a href="https://github.com/NVIDIA/Q2RTX">https://github.com/NVIDIA/Q2RTX</a>		
Education	Rochester Institute of Technology		August 2013 - May 2017
	B.S. Game Design and Development, Minor in Free and Open Source Software		3.35 GPA