| Liam | James   |
|------|---------|
| Midd | lebrook |

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# Skills

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

## Selected Projects Splattershmup - 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. http://splattershmup.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 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

3.6 GPA

## Activities

Election Night Hackathon 2014, FOSS@MAGIC, 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