Liam Middlebrook email: liammiddlebrook@gmail.com github: liam-middlebrook

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

NVIDIA Linux Graphics Intern May 2016 - August 2016
Worked on implementation Vulkan Direct to Display components of VK_DISPLAY_KHR.

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#.

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`

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

Activities

Sysadmin @ Computer Science House `https://csh.rit.edu`, Game Developers Conference 2016, 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