

# AGOSTON SZEPESSY



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AgostonSzepessy

## Skills

### PROFICIENT:

C++

Java

### PRIOR EXPERIENCE:

Rust

JavaScript

Python

Bash

### TECHNOLOGIES:

SFML

HTML 5

Git

Linux

## Awards

Western Universtiy ·  
Dean's Honour List 2015-  
2017

For successful completion of  
1st and 2nd year with a Yearly  
Weighted Average of 80% or  
greater.

## Education

Western University

B. Eng. Software Engineering 2019

GPA: 3.4/4.0

## Employment

### Microsoft

Software Engineer Intern

May 2018 to July 2018

- Added peephole optimizations to Microsoft Visual C++ Compiler (MSVC)
- Implemented type cache for MSVC linker which sped up debug builds by 35%
- Improved debugging experience for optimized variables by running expressions in a VM that reverse the optimizations done to the variable and retrieve the value

### IBM

Open Source Runtimes Developer Co-op

May 2017 to Aug. 2017

- Ported Docker build system for JVM from x86 to POWER
- Fixed 5 Java JIT compiler defects
- Cleaned up dead code

### Robarts Research Institute

Software Developer

May 2016 to Aug. 2016

- Created user interface for brain ventricle extraction software comprised of 15 different programs
- Automated ventricle extraction software using Bash script, which processed 3 images at once
- Extended ventricle extraction software to split ventricles in half after extraction using the Visualization Toolkit for reading in the image and NumPy for the linear algebra required to split the image
- Wrote technical user manuals

## Projects

Telemetry team member - SunStang (Western Solar Car Team)

2015 to 2016

- Developed software that transmits sensor data between subsystems in the car using the Controller Area Network (CAN) communication protocol
- Integrated GPS with real-time tracking in Google Maps into the CAN-based telemetry system for the car, using GMap.Net, a C# Google Maps API wrapper

Hack the North 2016

- An Android alarm app that tracks a person's location and is only disabled after they have reached a preset location
- Wrote backend which uses Google Play Services API for GPS tracking, and Android Services to turn on alarm

Rise of Oxshan

- 2D platformer written in JavaScript and HTML 5
- Uses AJAX to load levels
- Uses custom 2D game engine

Battle of Oxshan

- 2D game using custom game engine written in C++ with the SFML game library
- Player takes on the role of a mage and faces waves of various enemies

## Contributions to Open Source

Redox OS

- Implemented dependency handling system for package manager
- Fixed Dockerfile to allow building Redox with it

Servo (Mozilla Research Project)

- Implemented parsing and serialization for "text-emphasis-position" CSS property in Rust
- Wrote script to update Web Platform Tests

Maintainer of Mattermost Desktop RPM for Fedora

- Creator and maintainer of Mattermost Desktop App RPM for Fedora