

**Computer Games Technology**

A JavaScript Runtime for Hardware Accelerated Applications

**Computing Honours Project (COMP10034) Interim Report**

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# Introduction

###### The Topic

Multicore programming world

###### The Problem

Detail the problem with GPU programming today

###### The Solution

Detail ideas for a solution

# Technical Review

###### GPU’s

Why GPUs are important, dedicated + integrated

Lit review + blogs

###### JavaScript + Web Assembly

Speed, portability, flexibility, simplicity

###### Scripting Languages

JavaScript as a replacement for Python + Ruby, MatLab, R

###### V8 JavaScript Compiler

V8 vs other compilers

###### OpenCL + OpenGL

Availability portability typical application use, GLSL, Shader language

# Current Progress

###### Development Technique

###### Problems Encountered

###### Reading List

###### Prototype JavaScript Runtime

###### Debugging + External Lib Support

###### Demonstrations

# Plan for Completion

###### Finished Demonstration

###### Publically Available Source code

###### Bug fixing

###### Schedule

# Concluding Remarks

###### Excellent Progress

###### Looking forward to demonstrations + presentations

###### Possible future problems

# References

# Appendix