

Software Engineer

Passionate software developer with advanced knowledge of rendering APIs including OpenGL and Vulkan. 3D mathematics, game engines and hardware systems. Proven experience with team leadership roles.

Multi-language developer. Proven use of software design patterns, architecture, development strategies and unit testing. Proven research experience. Skilled in designing, developing, and maintaining software systems with a focus on building efficient and reliable products. **Areas of expertise include:**

- OpenGL, GLSL
- 3D Mathematics
- Unreal Engine 4
- Vulkan
- Data Structures
- Unity5 & C#
- C++
- Physics
- Java
- Mobile Dev
- Algorithms
- JavaScript

CURRENT PROJECTS AND CONTRACTS

- **Neato Game Engine & Vulkan Renderer:**
 - Cross platform game engine.
 - Both OpenGL and Vulkan Renderer
- **On This Spot, historical travel app:**
 - Android, iOS & React Native development
 - OpenGL ES & Metal development

EXPERIENCE

- **Electronic Arts** Burnaby, Canada
Software Engineer, FIFA Mobile *August 2018 - Present*
 - Re-factor of ageing OpenGL ES implementation
 - Developed and maintained client application with Haxe and C++
 - Server Development with Java & Build system maintenance
- **JibJab Studios** Marina Del Rey, California
Software Engineer *May 2017 - July 2018*
 - Developed and maintained a render library in both OpenGL and WebGL
 - Spearheaded development and operation of a mass gif rendering system using Java and AWS
 - Implemented shell scripts to automate render tasks using FFMPEG
- **Ocean Networks Canada** Victoria B.C.
Software Engineer *May 2016 - Apr 2017*
 - Developed large scale oceanic data API with JavaEE
 - Performance analysis and optimization
 - Designed and developed user-facing features using Javascript, HTML5 and CSS3.
- **University of Victoria** Victoria B.C.
Teaching Assistant: Embedded Programming *May 2015 - Dec 2016*
 - Instructed laboratory classes on use and development of assembly language programming
- **University of Victoria** Victoria B.C.
Hardware Security Fellow *May 2015 - Dec 2016*
 - Developed a hardware trojan detection application using Java
 - Designed and implemented a prototype of a new homomorphic encryption algorithm using C++.

EDUCATION

- **University of Victoria** Victoria B.C. Canada
Masters of Applied Science in Computer Engineering *May. 2015 - Dec. 2016*
- **University of Victoria** Victoria B.C. Canada
Bachelor of Engineering in Computer Engineering *Sept. 2010 - Apr. 2015*