



**Skills** 

Languages & APIs: C++, C, Java, C#, Scaleform, Actionscript, OpenGL/GLSL, Unrealscript, Python, Lua

Engines: CryEngine, Unreal Engine, Unity
Platforms: Windows, Linux & Android

# Work Experience

### Software Engineer at Oculus VR

Dallas TX, Aug 2014 - Present

Working on really cool stuff.

### Associate Programmer at Crytek USA

Austin TX, Jan 2014 - Jul 2014

- Working on HUNT: Horrors of the Gilded Age and contributed to the following: options menu, character customization menu, hit indicator system, friend list, global inventory, resource management system, and matchmaking lobby system.
- Worked within the following areas: UI, Online Services, Resource Management, Animation, and Multiplayer Gameplay.

### Programmer Intern at Gearbox Software

Plano TX, Jun - Aug, 2013

- Collaborated with design team on a project developing code in the following areas: editor, game, replication, state driven
  agent and animation.
- Worked with core technology division, developing code for a set of tools to extract patch information from source files and query a SQL database in addition to bug fixing.

## **Team Game Projects**

Kraven Manor [Steam Greenlit], UDK, 12 Developers, 9 Months *Programmer* 

- Helped integrate Steamworks.
- Implemented Artificial Intelligence systems.
- Implemented core shifting room mechanic.
- Implemented interactive & possessed objects.
- Implemented tools for designers.

Nerd Rage, Torque X, 4 Developers, 3 Months

#### Programmer

- Participated in game design meetings.
- Implemented color matching mechanic.
- Implemented tool for level designer to spawn waves of enemies.
- Maintained Technical Design Document.

Escape The Claw, UDK, 6 Developers, 4 Months Lead Programmer

- Specified and documented game systems.
- Implemented user controlled claw machine.
- Implemented replication picks up other players.
- Delegated tasks and fixed bugs.
- Maintained Technical Design Document.

Dragon Wreck, Android NDK, 2 Developers, 1 Month *Programmer* 

- Implemented core game engine.
- Conformed to Android app guides.
- Implemented GUI for touch interface.
- Implemented Open AL sound system.

# Game & Technology Projects

WELD - Thesis game project featuring a parallel genetic algorithm used for AI

- Thesis examines the benefits of machine learning in game development by implementing an AI that uses a parallel genetic
  algorithm for unit selection in a strategy game featuring customizable robots.
- Implemented a fast 2D engine from scratch featuring optimized core components enabling multiple games simulated per second in parallel.

### VANGUARDS - Tank Demo featuring terrain and concurrent renderer

- Used my skeletal animation tools along with a classmate's art asset to implement a fully controllable tank.
- Implemented height map based terrain and a ray cast vehicle model to drive the tank on the terrain surface.
- Implemented concurrent OpenGL renderer

### Education

The Guildhall at Southern Methodist University
Master of Interactive Technology, Software Development
Awarded Cohort 18 SD Honors for Organic AI using Genetic Algorithms
University of Minnesota
Bachelor of Science, Computer Science

December 2013

December 2011