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| 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.
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| **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.
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| **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.
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| Team Game Projects |
| Kraven Manor [Steam Greenlit], UDK, 12 Developers, 9 Months | Escape The Claw, UDK, 6 Developers, 4 Months |
| *Programmer* | *Lead Programmer* |
| * Helped integrate Steamworks.
* Implemented Artificial Intelligence systems.
* Implemented core shifting room mechanic.
* Implemented interactive & possessed objects.
* Implemented tools for designers.
 | * 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.
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| Nerd Rage, Torque X, 4 Developers, 3 Months | Dragon Wreck, Android NDK, 2 Developers, 1 Month |
| *Programmer* | *Programmer* |
| * Participated in game design meetings.
* Implemented color matching mechanic.
* Implemented tool for level designer to spawn waves of enemies.
* Maintained Technical Design Document.
 | * Implemented core game engine.
* Conformed to Android app guides.
* Implemented GUI for touch interface.
* Implemented Open AL sound system.
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| 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.
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| 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
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| Education |
| The Guildhall at Southern Methodist UniversityMaster of Interactive Technology, Software Development Awarded *Cohort 18 SD Honors for Organic AI using Genetic Algorithms* | December 2013 |
| University of MinnesotaBachelor of Science, Computer Science | December 2011 |