

Areas Of Interest Optimization, Engine Architecture, Platform Service Integration,, Tools

Technologies **Languages:** C/C++, C#, Powershell, Rust, Racket
Platforms: Nintendo Switch, Google Stadia, Xbox One, PS4, PS Vita, Android, Xbox 360, PS3, WiiU, Xbox

Experience ***Iron Galaxy Orlando LLC (2012 - Present):***

Unannounced Project (Switch):

- Demo port of multiplayer action RPG to Nintendo Switch
- Game built in Unreal Engine 4
- Investigated UI memory usage reduction
- Implemented optimizations for gameplay logic written in Blueprints
- Investigated bugs with parallelizing animations

Unannounced Project (Stadia):

- Lead engineer on unannounced port of multiplayer FPS title running on Google Stadia built using a proprietary engine
- Oversaw team of 2-4 engineers over the lifetime of the project
- Investigated rendering and GPU stability issues
- Investigated memory leaks stemming from engine's proprietary scripting language

Dreadnought (PS4, PC):

- PS4 port of PC free-to-play space combat game created with Unreal Engine 4
- Lead build and tools team
 - Responsible for maintaining and optimizing automated build system
 - Built tools to improve developer workflows
 - * Powershell scripts to automate build/cook/deploy
 - * Set up PS4 symbol server to help debugging
 - * GUI tool to automate deployment of built server versions to developer machines
- Investigated miscellaneous stability and performance bugs

7 Days To Die (Xbox One, PS4):

- Xbox One and PS4 port of open world, sandbox game implemented in Unity
- Lead optimization efforts for the console port including reducing memory allocations, parallelization of terrain generation, and moving specific systems to a native plugin
- Implemented performance benchmark scenarios
- Researched native reimplementations of specific systems to avoid costs of Mono/C# runtime

The Elder Scrolls Online (Xbox One, PS4):

- Xbox One and PS4 port of the MMO set in Bethesda's Elder Scrolls universe
- Helped architect and implement thread-safe bindings for platform services (PSN and Xbox LIVE) like login to game server, savedata, title storage etc.
- Worked with backend services team to implement client login system
- Implementation of UI screens related to interactions with platform services

Borderlands 2 (PS Vita):

- PS Vita port of Gearbox's co-op first person shooter
- Implemented occlusion culling for the Vita platform
- ARM SIMD extension(NEON) related optimizations
- Misc. porting related bugs involving gameplay, rendering and physics

Unreleased Project (Android):

- Port of iOS game developed using Unreal Engine 3
- Social media integration(Facebook and Twitter)
- HTTP abstraction layer
- Local/push notifications

Dungeons & Dragons: Chronicles of Mystara (Xbox 360, PS3, WiiU):

- Port of arcade classic to Xbox360, PS3, WiiU, and PC
- Implemented "House Rules" system and worked on related online tasks
- Gameplay and emulation
- "Vault" pipeline
- UI support

Education**MS Interactive Entertainment (2012)**

University of Central Florida
Florida Interactive Entertainment Academy
Orlando, FL, USA
<http://www.fiea.ucf.edu>

B.Tech Computer Science and Engineering (2011)

Amrita Vishwa Vidyapeetham
Amrita School of Engineering
Coimbatore, Tamil Nadu, India
<http://www.amrita.edu/cbr>