

OBJECTIVE

Principal level gameplay programmer and technical artist with a passion for creating 3D experiences that put the player first. Experienced in C++/C# online multiplayer game development in Unreal Engine and Unity 3D.

TECHNOLOGIES

PROGRAMMING

-  Unreal Engine 4-5
-  C++
-  Unity 3D
-  .NET (C#/XAML)
-  ShaderLab/HLSL/Cg
-  git, git-lfs, Perforce

ART/DESIGN

-  Adobe Creative Suite
-  Figma
-  Pixologic ZBrush
-  Luxology Modo
-  Autodesk Maya
-  Quixel Suite

EDUCATION

VIRGINIA TECH B.S. COMPUTER SCIENCE

Media and Creative Computing concentration
Minor in Mathematics

08.2009 - 05.2013 **GRAD DATE**

GPA: **3.99**

MICROSOFT PROGRAM MANAGER INTERN

Microsoft Account team

Redmond, WA Summer 2012

- Designed UI and wrote spec for Microsoft account login flow used by Office, SkyDrive, and other 1st party apps
- Designed hosted interrupt UI for Windows Phone 8 customers to resolve their compromised accounts

MICROSOFT PROGRAM MANAGER INTERN

Photos and Camera Apps

Redmond, WA Summer 2010 & 2011

- Prototyped UI for the Windows 8 touch-focused video editing, camera, and photo applications
- Delivered software specifications and functional prototypes
- Conducted usability studies with real customers to identify areas of improvement for iteration

CONTACT

For employment opportunities:
(LinkedIn and phone are preferred)

Location Seattle, WA
Phone +1 540 330 6465
LinkedIn <https://www.linkedin.com/in/johnmcelmurray/>
Portfolio www.johnmcelmurray.com
Email john@outlook.com

WORK EXPERIENCE

WONDERSTORM PRINCIPAL GAMEPLAY ENGR.

Online Multiplayer Co-op Action RPG, using Unreal Engine

Los Angeles, CA Mar 2018 - Present

Unreal C++ gameplay engineer working on *The Dragon Prince: Xadia*, a cooperative multiplayer game based on the Emmy Award-winning Netflix series. Built foundation for the "3Cs" (characters, controls, camera) in our game:

- **Characters:** Established pipeline used by our art/design teams to create 11 playable heroes, over 70 unique enemy NPCs, and 6 world bosses
- **Abilities:** Integrated Unreal's Gameplay Ability System, and championed its use for prediction, replication, and rollback, allowing designers to create over 600 unique abilities
- **Movement:** Customized Unreal's networked character movement to support our project's unique features, including knockbacks, sliding, and grappling hook ability
- **Animation:** Created Animation Blueprint graph and C++ logic, supporting nearly 100 characters (many with unique skeletons) with a single, shared parent ABP
- **Controls:** Generalized input handling across all of our supported platforms (console/gamepad, mobile/touch, PC/mouse + keyboard), including a fighting game-style input buffer and input queuing system
- **Camera:** Configured initial isometric camera setup
- **UI:** Led the development of much of our game's UI, including displaying player abilities in the HUD, re-usable widgets for common controls like tabs and modal dialogs, menus, navigation, and UI materials
- **Tech Art:** Created the toon shader and material graph used to emulate the look of *The Dragon Prince* animated TV show on Netflix
- **Porting:** Experienced in sharing cross-platform game logic, input management, and UI between console, PC, and mobile versions
- **Performance:** Profiled and optimized game logic, network bandwidth, and memory leaks
- **Online Services:** Worked with backend services team on player features, incl. missions, scaling difficulty, quests, economy, inventory, loadouts, progression, crafting, upgrading, and store purchases

MICROSOFT SOFTWARE ENGINEER 2

Realtime VFX editor for Windows 10 PCs, using Unity3D

Redmond, WA Jan 2017 - Mar 2018

- Created prototypes and pitch that resulted in funding of project
- Developed an easy-to-use visual effects editor for Windows 10 Movie Maker using Unity 3D as a rendering engine
- Created fully rewindable animation and VFX timeline system (including scrubbing, state machines, and events)
- Programmed 3D UI for manipulating animated characters and FX
- Experienced in physically based shading and extending Unity's Standard shaders
- Added support for loading glTF models at runtime from the web

MICROSOFT PROGRAM MANAGER 2

Windows 8.1 - 10 Photos, Video, and Camera Apps

Redmond, WA Sept 2013 - Jan 2017

- Designed and shipped the first video editor on Windows Phone (one of the first Microsoft Universal Apps)
- Contributed to integrating panorama, slow motion, HDR editing, and flash editing to the Universal Windows Camera app
- Brought GIF playback to Windows' native photo viewer for the 1st time since XP
- Experienced in international project management with our partner teams in Lund, Sweden and Espoo, Finland

CAMOUFLAJ, LLC TECHNICAL ARTIST

Republique (iOS game in Unity3D)

Bellevue, WA Aug 2012 - Jan 2013

- Wrote post-processing and character shaders for mobile
- Designed and coded an event based cinematic system using Goal-Oriented Action Planning (GOAP) AI
- Created system for loading subtitles and audio into the game
- Modeled and textured a main character and misc. props