FRANK WILLIAMS

Generalist / Full-Stack Engineer

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EXPERIENCE

ZeniMax Online Studios, Hunt Valley MD

Senior Gameplay Engineer – January 2020 – August 2020
As a senior engineer on Elder Scrolls Online, I am responsible for working on a wide variety of programming tasks, working with teams to provide estimates and insight into new feature work, maintaining game stability, and mentoring junior engineers.

ESO: Greymoor:
- Assisted the team on the new Antiquities feature with emphasis on the Scrying minigame and hooking up progression features to our Skill Lines.
- Refactored our Trigger Volume system to provide an easier and more stable workflow for our world designers.

Gameplay Engineer – October 2016 – January 2020
Responsible for fixing bugs, adding new gameplay features, and refactoring game systems on Elder Scrolls Online. I worked on both the server and the game client (C++), as well as some UI (Lua) when needed.

ESO: Morrowind:
- Provided necessary ability hooks for designers to build the Warden class.
- Updated Pet system to allow more combat functionality, more reliable player following, and better player control.

ESO: Summerset:
- Refactored ability system to remove duplication between player ability ranks.
- Implemented new functionality for the Psijic Order Skill Line including: heavy and light attack replacements and the rewind time functionality.
- Created a new Reward system to consolidate various other reward systems including PvP rewards, Leaderboard rewards, Daily Login rewards, Level-Up rewards, and more.

ESO: Elsweyr:
- Improved many combat, movement, animation, and AI systems to support new Dragon monsters.
- Built a new World Event system that controls dynamic event spawns in an overland zone.
- Added additive-animation capabilities to our animation system to support Dragons and future monsters / improvements.

PROFICIENCIES

C++98

Javascript (Node.js and Browser)

Windows
Visual Studio

AWS
EC2, S3, Route53, ELB, RDS

Git, Perforce, SVN

FAMILIARITY

Modern C++

Python, Lua

Granny3D, Havok Physics, Steam SDK, cURL, SDL2

Game Engines
Unity 4 & 5 (C#), Unreal 4, C4, PlayCanvas

OS X
XCode, clang

Linux
gcc, vim, bash

Consoles
Playstation 4 & 5 (PSN)

Databases
PostgreSQL, MySQL, MongoDB

NGINX

Muzzy Lane Software, Newburyport MA

Core Service Engineer - July 2014 - March 2016

Led team of senior engineers to remake all of Muzzy Lane's services and software. Wrote a completely new service that serves games to students, and allows Subject Matter Experts to author the content of those games. This new service uses only native web technologies (HTML5, WebGL, WebSockets) to run in browsers and on mobile devices. Led engineering efforts on the backend service, client architecture, dev-ops, tools, and analytics.

Senior Engineer - November 2012 - July 2014

As a senior engineer, I was responsible for maintaining our proprietary Locust Engine (C++, Javascript), as well as working on game prototypes, maintaining live products, tech support, dev-ops, and working with customers to create engineering specs, roadmaps, and estimates.

Junior Engineer - November 2010 - November 2012

As a junior engineer, I worked as a gameplay programmer, tools programmer, and on engine features. For most projects, I was either the only game programmer or part of a small team, and they were usually done over a period of 4-6 months. During this time I led efforts to build a suite of tools used to build RPG-like games: conversation editor, scene editor, and a quest / game state editor.

EDUCATION

Worcester Polytechnic Institute, Worcester MA

B.S. Interactive Media and Game Development — 2006-2010
Minor in Computer Science

Please take a look at the following for more projects I've worked on.

frank-williams   frankw.org