Manuel Silva

manuelsilva.github.io
manuelnevesdasilva@gmail.com
www.linkedin.com/in/manuel-silva-4b225a71

EXPERIENCE

GAMEPLAY PROGRAMMER, *CDProjektRed* Dec 2020 - Today

- Developed Gwent's modular 3D character pipeline from development tools to in-game systems.
- Developed procedural gameplay technology for unannounced project.
- Work on gameplay VFX and animations systems and tools for Gwent.
- Work on the core multiplayer game logic systems of Gwent.

TOOLS PROGRAMMER, *CDProjektRed* Jun 2018 - Dec 2020

- Develop, maintain and document all tools in the Gwent Team projects.
- Maintain the Gwent databases that enable our data driven systems.
- Provide support to the in-house localization technologies.

INFORMATICS TEACHER, *Médicos do Mundo* Dec 2017 - May 2018

Was a volunteer helping to improve accessibility and knowledge of computer and technological information basics to elderly people through weekly classes.

PROJECTS

GWENT, *The Witcher Card Game [PC][XBOX][PS4][iOS][Android]* Jul 2018 - Today

Gwent is a CCG (Collectible Card Game) for PC, XBOX, PS4, iOS and Android. The game is currently localized in 11 languages. I've been working in this project since Beta, worked on all major expansions and updates to the game since its release and helped bring the game to mobile platforms. I went through several development cycles and shifts in development style as the project needs changed and matured.

THRONEBREAKER, *The Witcher Tales [PC][XBOX][PS4]* Jul 2018 - Feb 2019

Thronebreaker is a SinglePlayer story driven RPG that uses the Gwent card game mechanics as a narrative device. I've started working on ThroneBreaker midway development and it was a great learning experience working on this project while simultaneously working to make Gwent leave its Beta stage.

BLISS, *Realtime cloud simulation and volume rendering with volumetric lighting* 2018

Project done for the course "Advanced Computer Graphics"
Building on the foundation of a previously developed OpenGL \ C++ engine implemented a scientific paper on cloud simulation and rendering using threads, cellular automata and volume rendering techniques.

SKILLS

- Software Development
- Game Development
- Tool Development
- Database Maintenance

- C#
- C++
- Python
- SQL

Unity3D
Perforce
GitHub

GNU Linux

Portuguese Native Speaker
English Professional Proficiency
Japanese - JLPT N5 (studying for N4)

EDUCATION

MSC. IN INFORMATION SYSTEMS AND COMPUTER ENGINEERING 2017 - Interrupted

Instituto Superior Técnico

Interrupted master studies focusing in Video Games and Computer Interaction / Visualization to pursue a professional opportunity at CDProjektRed, relevant completed courses include:

• Advanced Computer Graphics • Information Visualization • Game Design

BSC. IN INFORMATION SYSTEMS AND COMPUTER ENGINEERING 2013 - 2017

Instituto Superior Técnico

- Computer Graphics
- Linear Algebra
- Calculus I & II
- Complex Analysis
- Computer Organization
- Operating Systems
- Computation Theory
- Algorithm Analysis

Manuel Silva
manuelnevesdasilva@gmail.com
www.linkedin.com/in/manuel-silva-4b225a71

Work Sample

Since I'm under NDA I cannot disclose any specifics on the internal technologies I developed while working at CD Projekt Red so here is a small sample of some of the most noteworthy systems I worked on that have been released to the general public

Manuel Silva
manuelnevesdasilva@gmail.com
www.linkedin.com/in/manuel-silva-4b225a71

Work Samples

Developed Core Technology Behind Gwent's Modular Character System

- Supports real time mesh replacement while rig is animating
- Includes tools for artists to easily set up new modules and integrate their changes into the game

Manuel Silva
manuelnevesdasilva@gmail.com
www.linkedin.com/in/manuel-silva-4b225a71

Work Samples

Optimized Card Rendering Technology and the Card Creation Pipeline

Gwent is a cross platform game that targets both high end and low end devices, currently it has more than 800 cards all of which have fully animated 3D scenes as such I've worked on a variety of systems and optimizations to ensure good performance across all devices.

- Dynamic caching and pooling systems for meshes and VFXs
- Performance budget analysis and auto correction tools
- Optimized Render Texture Setups
- Custom MipMaps system to properly handle 3D card's UI in low end devices
- Maintained and improved all databases and tools systems to version, edit and localize all data driven systems in the game

Manuel Silva
manuelnevesdasilva@gmail.com
www.linkedin.com/in/manuel-silva-4b225a71

Work Samples

Worked on Core Gameplay Systems

- Improved and extended our internal gameplay systems and internal node editor system to allow designers to create more rich gameplay experiences

- Created animation reaction system for the game boards that reacts to player inputs and game events to allow for the creation of dynamic and reactive animations without the need for programmer support

- Created dynamic VFX highlight system that improves the player UX by highlighting relevant areas of the game throughout the match