Emmanuel Lajeunesse

Game Programmer and Software Developer

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Skills and Experiences Summary

Programming

- Developed game engine in modern openGL with GL3W and GLFW
- Strong understanding of graphics pipeline and writing shaders with GLSL
- Advanced knowledge of scripting languages (C# / Python)
- Experience using VR tech such as Google cardboard and HTC Vive to create immervise experiences
- Conceived tools, games and tech demos using the Unity engine
- Improved and optimized programs using multithreading
- Designed unit tests and debugging systems for software
- Strong understanding of Big O and container complexities
- Implemented game design concepts into game projects
- Used Winsock to create UDP Networking programming for game projects
- Experience desigining systems using UML diagrams
- Integrated 2D and 3D audio systems into projects with the FMOD library

Tool Creation

- Level editors for multiple projects to help the level designers have a better workflow
- Pathfinding visualizer and editor to give designers more control of the game's AI system.
- Plugin for Unity to allow easy editing of vertices in the editor along with normal recalculation and UV adjustments

Modelling / Animation

- Understanding and experience with modelling, texturing, and animating
- Strong understanding of animation systems such as Forward/IK kinematics, quaternions, animation algothims

AI / Machine Learning

- Created unsupervised neural networks to train an AI to learn how to play games such as Pong, Pac-man and Tetris
- Experience using state machines and behaviour trees for complex AI
- Designing and creating pathfinding logic for AI traversal

Links

- Portfolio Website: https://emmanuelgamedev.wixsite.com/home
- Project Repositories: https://github.com/incetents
- LinkedIn: https://www.linkedin.com/in/emmanuel-lajeunesse/

Languages

- C/C++
- C#
- OpenGL
- GLSL
- Java
- Python

Programs

- Visual Studio
- Unity
- Adobe Photoshop
- Jira
- Adobe Flash
- PyCharm
- IntelliJ
- Maya
- Processing
- TortoiseHG
- SourceTree
- GitKrakken