Chen-Han Tsai

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Demo Reel: http://pierretsai.net/overview/

Work Experience

OpenGL Driver Engineer, AMD 6/2016 - Present

• GPU/CPU Optimization
• Debug graphic issue for various kinds of real world games/applications at AMD hardware
EX: Doom3, HTC vive, Rage, OpenGL extension view, Oculus VR, Unigine Heaven….
• Implemented application testing farm by using Jenkins.
EX: Built the test platform from the scratch with different kinds of apps, improve user experience by using chart to shows failure/successful cases, Improve developers debug working flow

Unity3D game developer Intern, CelleC Games 2/2016 – 4/2016 • Developed educational games by using Unity 3D

R&D Associate Engineer, ITRI, Taiwan 8/2009 – 4/2014 • Researched for next-gen Non-volatile memory, Resistance memory (RRAM) • Lead test programmer, wrote C program for auto test up to several weeks • Lead communicate engineer between 3 departments and companies • Lead tape-out engineer, responsible for US 200K products every year • Designed the circuit for Mb array chip
• Analyzed the defect in the chip, improving the stability

Full Sail Student Team Project

Monochrome Game (C++) 11/ 2015 – 2/2016 • Imported around 50 different animations by skeleton animation • Each animation data converted to the binary file, so it could load within seconds • "Broken limb system" for gameplay
• Enemy's body parts would be destroyed based on shooting positions • • Enhanced the immersion for First Person Shooter by design helmet UI • Designed and innovated the boss fight

Monochrome and 3D Game Engine (C++) 10/2015 • Skeleton animation system developer, CPU/GPU optimization
• Shrank the size of objects by implemented animation data sharing • Each object only kept the specific data for key-frame information • Maya to game engine data-driven import, no need to re-compile

Monochrome prototype (C#, Unity) 9/2015 • Designed one complete level using unity
• Created boss fight, separated boss mesh with animation data

PrimEvil and 2D Game Engine (C++, C#) 1/2015 – 2/2015 • Used C# to make level design tool in 2D game engine
• Implemented levels/events by using own making C# level tool

PrimEvil (C#, Unity) 12/2014 • Responsible for AI state machine and animation for 2D sprite

Personal Project

WWE NXT wrestling App (Unreal Engine) 11/2015 • Designed all UI by Unreal blueprint system

Rocky Ball (Unreal Engine, C++) 7/ 2015 • Created one complete level by Unreal blueprint system

Dragon Ball Pong (C#) 10/2014 • Implement all the game play, 2D animation sprite
• Player vs. AI or AI vs. AI

Education

Full Sail University, FL, U.S.A 4/2014 – 2/2016 • Game Development Bachelor of Science Degree (3.61GPA)

National Chiao Tung University, Taiwan, R.O.C 8/2007 – 7/2009 • Electronic Engineering Master (3.8GPA)

National Chiao Tung University, Taiwan, R.O.C 9/2003 – 6/2007 • Electronic Engineering Bachelor (3.42GPA)

Technical Skills

• GPU/CPU Optimization
• Graphic Programming
• Game Tools Programming
• Skeleton Animation
• Game Engine Architecture
• Game AI Programming
• UI Programming
• 3D Math
• IC layout, simulation, measurement

Programming Skills

• C++ / C#
• Unreal/Unity
• Python/groovy
• HLSL /GLSL
• MySQL

Software Skills

• GPU PerfStudio
• Maya
• Git/Perforce (Source control)
• Hansoft
• Origin (Statistic)
• Cadence(IC Layout)
• SPICE(IC simulation)

Award

Valedictorian 2/2016 • Highest GPA among Feb 2016 Game Development students at Full Sail

Course Director's Award 2/2016 • Programming 2
• Object-orientation programming
• Windows game programming
• Computer of architecture
• Engine development 1

Language Skills

• Native Mandarin Chinese
• Professional English