Yiu Chung Steven Ho

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Date of Birth: 16-12-1999

Nationality: British

Education

University of Leeds, UK • 2022

Master of Science in High-Performance Graphics and Games Engineering

- Related Modules taken: Foundation of Modelling and Rendering, Geometric Processing, Animation and Simulation, High-Performance graphic, Scientific Computation and Artificial Intelligence.
- Worked on creating a mimic of OpenGL in terms of Rasterization, Matrix Transformation, Texture Mapping, Lighting, Shadowing, and a Ray Tracer.
- Implemented Inverse Kinematics, Soft-Body Simulation and SPH Fluid Simulation.
- Mesh Data Structures, Geometry Curves and Surfaces, and Texture Synthesis and Generation.
- Hands on experience in tools such as: OpenGL, Vulkan, Visual Studio 2019/2022, GLSL and git Version Control.
- Worked as a team of six to create a card game engine, the Nox Engine.

Swansea University, UK • 2021

Bachelor of Science (Hons) in Computer Science – First Class Honours

- Related Modules taken: Computer Graphics, Introduction to Video Game Programming, Web Application Development, Software Engineering, Advanced Object-Oriented Programming (C, C++), Cryptography and IT-Security, Writing Mobile Apps (Android), Database System etc.
- Participating in group discussion work which involve exchange of ideas and finalize decisions on a certain topic; Present ideas and findings in the form of visual and verbal presentation.
- Worked in team of three to six to complete assigned projects. Motivated and inspired team members through offering support, encouragement, and positive attitude.
- Analyzing various resources of information in a structured, well-evidenced and coherent manner.

Tang King Po School • 2017

Hong Kong Diploma of Secondary Education (HKDSE): Chinese, English, Mathematics, Biology, Chemistry

Skills

Language: Proficient and fluent in Chinese (Cantonese) and English

Programming Language: C, C++, C#, Java, Python, Kotlin, HTML and CSS, MySQL, Laravel, PHP

Hands on experience: OpenGL, Vulkan, Unity, GLSL, Visual Studio 2019/2022

Other: Git Version Control, Unix/macOS, Android Studio

MSc Project Dissertation

Hair Simulation

- TBC

Final Year Dissertation

Improved Video Game Technology

- Improve enemy's A.I. behavior in an existing Unity3D game which involves:

- Replacing Finite State Machine A.I. with Behavior Tree.

- Improving A-Star pathfinding algorithm with random selection of nodes.

- Implementing Group Behaviors where a group of enemies which they can interact and act differently.

Project Done in University

Nox Engine, COMP5530M Group Project, University of Leeds

- Source: https://gitlab.com/sharlock93/noxengine

- Demo: https://www.youtube.com/watch?v=RSH4iIbSRrY

- A game engine that is targeted to have card game as a main focus.

- Implemented the Asset Loading, Animation System, Animation Editor, some part of the Entity Component System (ECS), some part of the UI (Presets panel, Inspector panel – customizable game objects), Serializing and Deserializing System.

- Utilized: C/C++, OpenGL 4.6, GLSL, Visual Studio 2022, git Version Control, Assimp, Glad, GLFW, GLM, ImGui, ImGuizmo.

Side Projects

Final Fantasy Unity Clone

- https://github.com/stevenwhatever123/final-fantasy-unity-clone

- Developed a Final Fantasy VII remake like game with basic mechanics.

- Added a system which switches between combat and non-combat.

- Utilized: C#, Unity

Foxy Platform

- https://play.google.com/store/apps/details?id=com.fireintheho.foxyplatform

- Developed and published a 2D platform game on Google Play Store.

- Implemented an infinite platform generator and score system.

- Utilized: C#, Unity

Activities

- Participated Google Hash Code Competition 2020

- Achieved Grade 8 piano in Associated Board of the Royal Schools of Music (ABRSM)