Fanxiang Zhou

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Summary

Master's Degree in High-Performance Graphics and Game Engineering, with a graduation year of 2023 from the University of Leeds. Previously served as an Intern Gameplay Programmer in China for a duration exceeding one year. Proficient in graphics APIs such as OpenGL and Vulkan, experienced in working with commercial game engines like Unreal and Unity, as well as frameworks such as Qt and Blazor. Currently exploring new job opportunities in the graphics domain and game industry.

Education

University of Leeds, UK **Sept 2022 – Sept 2023**
Master of Science (MSc) in High-Performance Computer Graphics and Game Engineering
Coursework: Rendering, Geometry, Animation/Simulation, Vulkan, Game Engine

Zhejiang University of Technology, China **Sept 2018 – Sept 2022**
Bachelor of Software Engineering *GPA: 3.9/5*
Coursework: C++ Programming, OOP Programming, Java Programming, Database and Front End

Experience

Pandada Games **Sept 2021 – Aug 2022**
Unity Client Programmer for 'Ninja Must Die', a team with approximately 200 members *Hangzhou, China*
- Maintained and optimized visualized toolchains for Combat Team, including combat map editor, state machine, behavior tree
- Developed combat features and exposed them into visualized editors, including characters, skills, props, buffers.

Yoka Games **Jun 2021 – Sept 2021**
Intern Mobile Client Developer for a Legend of the Three Kingdom *Hangzhou, China*
- Developed client-side gameplay, UI, and server interaction for a card game using Cocos2dx-lua
- Conducted game testing across approximately 20 distinct Android phone models
- Maintained supporting tools and addressed daily business needs

Java Software Engineer, Ningbo Green Light Energy Pvt Ltd. **Jun 2018 - Sept 2018**
Intern Java Back-end System Development *Ningbo, China*
- Maintained back-end systems used by the operations department, covering device and user management across roughly 50 neighborhoods
- Introduced management features for the back-end website and facilitated visualization for CRUD operations within the database

Technical Skills

Programming Languages: C++, GLSL, HLSL, Java, C#, Python, Javascript, Lua
Graphics API: OpenGL, Vulkan
Engines: Unity 3D, Unreal, cocos-2dx
Frameworks: Qt (C++ & Python), MAUI & Blazor, React, Pytorch
Software & Tools: Git, SQL, Office, RenderDoc & Nsight, CMake, Kinect SDK, Motionbuilder, Blender
MISC: Design Patterns, Concurrency

Projects

VR-based Dancing Training System | *VR, Mocap, Body-tracking, Motion Compare* Github **Jun. 2023 – Aug. 2023**
- Processed dance data captured with Optical Mocap Devices in Motionbuilder
- Achieved 80% accuracy in real-time body-tracking and motion comparison using Kinect, enhanced by a Kalman filter
- Integrated and displayed within a VR environment using the HTC-ViVE headset and Unity 3D

Sparrow-Engine | *OpenGL, Editor, Resources, Tools* Github **Apr. 2023 – Jun. 2023**
- Designed a comprehensive asset and resource workflow, encompassing serialization, prefab, scene graph...
- Created robust tool chains and utility modules, such as math operations, file systems, configurations, launch processes, and lua-bindings
- Created a user-friendly editor for the engine, featuring a menu bar, scene item selection, file explorer, and other essential tools

Sparrow-Renderer | *OpenGL, Rendering, Simulation* Github **Apr. 2023 – Present**
- Implemented over 10 rendering features in the forward pipeline using C++ and OpenGL
- Developed cloth simulation using the Mass-Spring System and Verlet Interpolation, achieving stable FPS above 60 with 40,000 mass nodes
- Designed modular code structure for scalability and future engine development

Language Proficiency

Mandarin:native
English : fluent