



Rui "Siri" Xie

Gameplay Programmer



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LANGUAGES

C/C++

C#

OpenGL / GLSL

Python

XML

JSON

SOFTWARE

Visual Studio 2017

Unity 5

Unreal Engine 4

RenderDoc

Perforce

Git

Hansoft

Office Suite

HIGHLIGHTED SKILLS

Game Engine Architecture

Software Engineering

Data Driven Game Design

Gameplay Prototype

Data Oriented Design

Object Oriented Programming

Memory Management

Data Structure

Unreal Blueprint

3D Math

Linear Algebra

Agile Development

Source Control

EDUCATION

The Guildhall at Southern Methodist University

MAY 2019

Master of Interactive Technology, Digital Game Development

Beijing University of Posts and Telecommunications

JUL 2017

Bachelor of Engineering, Computer Science and Technology

TEAM PROJECTS

Interstellar Racing League

5 MONTHS, 2018

Unreal Engine 4 | Physics Programmer | Team of 55 Developers (15 programmers)

- Designed vehicle blueprint component-based architecture
- Created and refined vehicle's physics model using customized gravity, stability and suspension components
- Assisted with implementing and binding track features including boost and knock pad to event dispatchers
- Assisted with improving car feel using physics materials and collision box

Feline Friendship Force

4 MONTHS, 2017

Unity | Programmer | Team of 5 Developers (2 programmers)

- Implemented the node-edit tool for level designers to make levels
- Designed enemy AI state machine and transitions
- Designed and implemented visual effects and sprite animations in the reward scene

INDIVIDUAL PROJECTS

RayX Engine

C++ | OpenGL

- Developed using C++ 11, OpenGL 4.2 and Visual Studio 2017
- Supported rendering features including OpenGL context creation, data-driven shaders and materials, mesh builder, kerning fonts, orthographic and perspective camera, sprite animations, forward rendering path, multi-type light, post-processing image effects
- Supported keyboard & mouse, and Xbox controller input
- Developed own 3D math library and 3D transform hierarchy
- Supported debug draw system, built-in command console, built-in profiler, nested clocks, multi-thread logger

GameBuilder

C++ | OpenGL

- Designed to author many 2D tile-based games with XML data files easily
- Developed event system to handle message transmission between entities
- Created property tree structure to support data-driven gameplay

PROFESSIONAL EXPERIENCE

7D Studio

3 MONTHS, 2016

Unity Programmer

- Commissioned by China International Publishing Group and developed a VR App on HTC Vive, Android and iOS platform
- Utilized Unity and C# to implement UI interaction in VR and collaborated camera movement with tween system

HTC Vive

3 MONTHS, 2016

Viveport Intern

- Developed a scripting program using Python with Selenium and BeautifulSoup 4 to simplify user comments extraction process
- Assisted with CDN configuration, performance test and migration which helped developers launch applications on Viveport