Wenxuan (Neal) Huang, Game Programming Intern, Summer 2021

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Education

Carnegie Mellon University, Entertainment Technology Center (ETC) Pittsburgh, PA
Master of Entertainment Technology May 2022

University of California, San Diego (UCSD) San Diego, CA
Bachelor of Science, Computer Engineering June 2020

Relevant Coursework

Game Engine Development, Computer Graphics, Computer Animation, VR Development, Deep Learning, Machine Learning

Skills

Coding Languages: C, C++, C#, Java, Python, OpenGL, HTML, JavaScript
Applications: Unity, UE4, Visual Studio, Jupyter Notebook, Eclipse, Perforce, Git
Languages: English(proficient), Mandarin Chinese(native), Japanese(conversational)

Experience

Avaya Inc., Shanghai, China Summer 2019
Software Engineer, Intern

- Implemented a customer service AI recommendation backend that supports multi-model selection, auto data-cleaning and version control using Java and Python
- Improved speed of data-processing and model training by 56% by using multi-thread programming
- Built a general adaptive connector for different models and datasets, which allows for fast model generation and recycling

IFU (Student Organization), San Diego, CA Summer 2018
Software Engineer

- Developed a WeChat mini program providing daily updated news for students
- Maintained and updated IFU website

Academic Project

Building Virtual Worlds, Programmer, ETC, Pittsburgh, PA Sep 2020 - Present

- Acting as programmer and producer for five rounds of game projects through prototyping, development and collaboration with other programmers and artists
- Working on five-person teams to build an interactive entertainment world in one to three weeks
- Designing and implementing game mechanics using Unity and C#
- Honing collaboration and iteration skills while communicating across diverse roles

Particle Based Fluid Simulator, UCSD, San Diego, CA Jan 2020 - Mar 2020

- Built a real-time water simulation program using C++ and OpenGL
- Optimized the simulation by using grid-based space-partitioning data structure and increased the maximum number of particles by over 300%

VR Billiard, UCSD, San Diego, CA Apr 2019 - Jun 2019

- Created a multiplayer VR billiard game on Oculus platform using C++, OpenGL and Oculus SDK
- Developed physics-based mechanics to simulate collisions, frictions and gravity.
- Implemented a pixel-based shader to improve the graphics of the game
- Supported online multi-player gaming function by using RPC to transfer data through internet

Raytracing Based Picture Renderer, UCSD, San Diego, CA Jan 2019 - Mar 2019

- Built a raytracing graphic renderer using C++
- Boosted the rendering speed by using tree-based space-partitioning data structure and CPU-based multi-thread programing and increased the speed by 100x