

YingXuan(Jennifer) Liao

Graphics programmer

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SKILLS

Programming: C++, Lua, C#, OpenGL, Java web development, Xml/Html/CSS/JavaScript

Arts & Design: Adobe Illustrator; Sketch/Figma; MagicalVoxel

Game Engine: Unity/Unreal

Core Courses: Data structures and algorithms, Computer graphics, C++ programming

EDUCATION

Carnegie Mellon University (CMU)- Master of Entertainment Technology **2021.08 – Expected 2023.05**

School of Computer Science, Major in Entertainment Technology

Wuhan University (WHU) - Bachelor of Engineering **2015.09 - 2019.06**

School of Computer Science, Major in Software Engineering

EXPERIENCE

[Lilith Games Company](#) | Game developer | Lua, In-house game engine, Metaverse **2020.03 - 2021.05**

- Worked on **io games, RPG, and chatroom** in a Metaverse game platform project.
- Implemented game logics like cameras, FSM, NPC behaviors, Object Pool in the **In-house game engine**.
- Converted the design into reality using scripting languages (**Lua**).

Neusoft Ruidao Company | Software Engineer (Intern) | Java web dev, MySQL **2018.07 - 2018.08**

- Joined an incubator project about a travel blog website developed with Java, including front-end and back-end development. e.g. MySQL, Java Servlet, Spring MVC, and other common technologies.

PROJECTS

Telepathway, [Google](#) | General Engineer(Graphics) | C#, Unity, CG **2022.2 - Expected 2022.5**

- An Academic Team Project with Google, exploring the **visualization of Machine Learning**.
- Write procedural generating map in **Unity** using Delaunay triangles and mesh editing.
- Involved in visualizing K-means clustering and Reinforcement machine learning.

Rasterizer & Mesh edit & Ray tracer | Graphics Engineer | C++ **2022.2 - Expected 2022.5**

- Writing a **3D CG software toolset**, based on the course CMU 15-662 Computer Graphics.
- Using C++ and OpenGL to implement many functions in rasterizer, geometry, ray tracing.

Build Virtual World, CMU | General Engineer | Shader, C#, Unity, VR/AR **2021.9 - 2021.12**

- Building each game with the other programmer, 2 artists, and a sound designer in every 2 weeks. Including **Unity, XR technology(AR,VR)** and so on.
- Making particle systems like fire, fog effects. Writing shader graph to make water, thunder. Implemented many game logics like Singleton Pattern, NPC behaviors, Game manger Template.

RESEARCH

Bachelor Degree's Thesis

Chatbot Under VR - how to enhance the conversation experience

2018.12 – 2019.05

- Developed and trained a spoken dialogue system in **python**.
- Analyzed the emotion scores of players and AI's words with the help of IBM Watson SDK, and explored how emotion analysis would change games in a testing virtual reality game environment in Unity.