Zhehao Xu

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EDUCATION

University of Southern California, Viterbi School of Engineering

Master of Science, Computer Science

University of Southern California, Viterbi School of Engineering

Bachelor of Science, Computer Science (Games) GPA: 3.89

Honors: Dean's list (2021 – present)

Los Angeles, CA August 2024-May 2025 Los Angeles, CA August 2020-May 2024

SKILLS

Programming Languages / Frameworks: C++, C#, Java, Python, HTML/CSS, JavaScript, Spring Boot, MySQL, SDL

Version Control Software: Perforce, Git Game Engines: UEFN, Unreal Engine 4/5, Unity

EXPERIENCE

USC AGP Program Los Angeles, CA May 2023-Present

Gameplay Engineer

- Work as gameplay engineer for the Advanced Games Project program on the Oasis Blitz team.
- Implement gameplay mechanics for a platformer game that uses drilling as the main mechanic.
- Utilize different libraries such as FMOD and DOTween along with Unity Engine and C#.

USC Viterbi School of Engineering

Los Angeles, CA

CSCI Course Producer

August 2022-Present

- Work as course producer for CSCI104: Data Structures and Object-Oriented Design and CSCI103: Introduction to Programming.
- Become students' go-to person for explanation of complex algorithmic concepts and trusted by Professor Goodney to grade exams.

Sony

Culver City, CA

June 2023-August 2023

Summer Associate - Sony Immersive Music Studios

- Used UEFN and Unreal Engine to quickly create working prototypes that combine music with gaming.
- Built a working rhythm-based third-person shooter with concept art and music from a Sony Music Artist inside of UEFN.
- Built a system of audio synchronization with gameplay using the Sequencer Tool inside of UEFN.

ACADEMIC PROJECTS

Fall 2022 **Multi-agent Pathfinding**

- Addressed the difficult concept of pathfinding and built a multi-agent pathfinding C++ solution with A* pathfinding.
- Experimented with time-space A* and prioritized planning using constraints satisfaction, uploaded to <u>GitHub</u>.

Perceptron Learning Fall 2022

Implemented a perceptron learning model for classifying IMDB movie reviews using C++, uploaded to GitHub.

Hack SC – Lipstick Web Application

Summer 2021

- Innovated in makeup industry by deploying an application for users to try out different lipstick colors online.
- Achieved functionality using facial recognition libraries in Python along with PHP, HTML/CSS, uploaded to GitHub.

GAME PROJECTS

Spring 2023 **Game Prototypes**

- Constructed various game prototypes, each with a unique theme using Unity game engine.
- Created each game idea through rapid iteration and prototyping within a short time of two weeks.
- Practiced C# and game design skills under different constraints. Prototypes are uploaded to Itch.io.

Tencent Games Open Course Unreal Engine Projects

Summer 2022

- Constructed various demos that each demonstrated a core skill related to Unreal Engine using UE 4.27.
- Achieved a certificate from Tencent Games by completing the course.
- Practiced C++ and Blueprint programming, learned about animation blending, multiplayer, and graphics, uploaded to GitHub.

An Average Day Spring 2022

- Worked in a team of two to create a 2D puzzle game with Unity published on Itch.io.
- Went through the process of pre-production, production, and post-production working in pairs.
- Designed levels and coded gameplay with Unity.

LANGUAGES AND INTERESTS

- **Languages**: *English* Fluent; *Chinese* (*Mandarin*) Native.
- **Interests**: Game Development; Drumming (Rock or Jazz); Music Production; Gaming; Skiing.