

SHUYANG ZHANG

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🎓 EDUCATION

University of Southern California (USC), Los Angles, US Aug. 2023 – Present

M. S. in Computer Science Game Development (CSGD), expected May 2025

Beijing Jiao Tong University(BJTU), Beijing, China Sep. 2019 – Jun. 2023

B.S. in Software Engineering (SE)

👥 WORK EXPERIENCE

Tencent Games - TIMI Studios May. 2024 – Aug. 2024

Gameplay Engineer Intern GKART Mobile (Unity)

- **Performance Optimization:** Project Logging system optimize, reduce logging GC cost; xLua hotfix optimize, reduce game startup loading time.
- **Crash, Exception, Error reporting system modification:** Optimize game exception, error report info, reduce debugging time for developer; Built crash stack trace analysis tool pipeline; Researched the issue of missing Exception, Error stackTrace .
- **UI development:** Develop game's match opening show and player feedback UI.
- **CDN package size optimization:** CDN image format modification, from JPG, PNG to ASTC.

🎮 GAMES

Somnora Sep. 2024 – Present

Lead Engineer and Visual Designer (Unreal Engine 5)

- **All Game Logic:** Realistic movement, Smooth Gravity adjustment, Game Sound integration etc.
- **Visual and Scene Design**

Myth Of Lumi Jul. 2024 – Present

Gameplay Engineer (Unity)

- **Game Framework:** Zenject integration, Game State Machine, Game Event System, etc.
- **Turf War system:** Turf War area generation, player movement in Turf War area.
- **Enemy AI:** Programmed AI behaviors for enemy by behavior tree, including pathfinding, decision making, skill usage, etc.
- **UI development:** Develop all game's UI.

Gazed House Feb. 2024 – Jun. 2024

Lead Engineer (Unity)

- **All game mechanics and systems:** integration with tobii eye-tracking, camera behaviors, enemy logic, game saving, game sound etc.

🛠️ CG PROJECTS

- **Dirt:** Offline CPU ray tracer written in C++ from scratch.
- **Gaussian-Splatting-Monitor:** More features Gaussian Splatting repo for research purposes.
- **Geometry Processing:** Geometry processing algorithms implementation, including Reconstruction, Sub-division, Smoothing etc.
- **Volcan:** Minecraft Shader, implement PCSS, Blooming and Screen Space Reflection.
- **D3DRT:** Real-time DX12 RayTracer.
- **EdenRenderer:** Software Rasterizer written with C++.

SKILLS

- Programming Languages: C++, Python, C#, JavaScript, TypeScript, GLSL, HLSL
- Game Engines and DCC Tools: Unity, UE5, Blender