YICHEN SHOU

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Senior Gameplay Engineer with 6+ years of experience working on Live Service/MMORPGs at a AAA game studio. Passionate about video games and translating designers' ideas into implementations with a focus on robustness and performance. Skilled at implementing systems at all layers from client to server, and features of all types from mini-games and achievements, to movement and camera.

WORK EXPERIENCE

Senior Gameplay Engineer | Zenimax Online Studios
Feb. 2019 - Jul. 2025

- *Unannounced MMORPG*
  - **Created** new tools/workflows in a proprietary ECS engine to help 3C's designers implement movement systems.
  - **Collaborated** with server engineers to sync player movement mechanics using networked Hierarchical State Machines.
  - **Prototyped** new player camera systems and debugging tools.
- *The Elder Scrolls Online*
  - **Implemented** both front-end and back-end game logic for the Tales of Tribute card game, including building a new keyframe-based card animation system from scratch.
  - **Transformed** the Antiquities system from paper prototype to full implementation, developing both client-side logic for minigames and server-side logic to persist player progression.
  - **Worked** with database engineers to implement server-side logic for the Group Finder feature that allows players to post/search for groups.
  - **Engineered** the Account-wide Achievements system, streamlining player progress tracking while reducing database footprint by as much as 18 times.
  - **Identified** and implemented quality-of-life improvements to the in-game mail system.
  - **Architected** a performant and memory-efficient system to track persistent player statistics and progression.
  - **Authored** server-side logic for the Companions system.
  - **Integrated** the Epic Games API to port the game to Epic Games Store.

AR/VR UX Research Intern | NVIDIA
May 2018 - Aug. 2018

- **Researched** new AR/VR experiences by developing weekly prototypes in a team as the main C++ programmer.
- **Created** an API that drastically reduced the development cycle of new prototypes.

EDUCATION

University of Pennsylvania | Philadelphia, PA

Master of Science and Engineering | Computer Graphics and Game Technology — Dec. 2018

Bachelor of Science in Engineering | Digital Media Design — May 2016

PROJECTS

Towerbeats: Rhythm Defense
Jan. 2018 - Aug. 2018

- Rhythm-based tower defense game, made with Unity during Global Game Jam 2018 and polished up afterwards.
- Designed and developed during Global Game Jam 2018 as the solo developer. Released on Itch.io after polishing.

SKILLS

Programming Languages: C++, C, C#, Python, Lua, SQL

Software: Visual Studio, Unreal Engine, Unity, Perforce, Git, Jira, Confluence