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Education & Skills



Work Experience

Tencent Technology (Shenzhen) Co., Ltd. - Software Developer Shenzhen, China June 2021–April 2023

- Led a team of five to develop an incubated-commercial mobile game in 15 days, resulting in the game winning the Minigame Project Gold Award and Best Art Award.
- Built and optimized an audio management framework, reducing memory usage by 2% and eliminating network voice exceptions, improving game performance and stability.
- Developed a performance detection alerting system, reducing startup time to under 50 seconds, UI open time to under 500ms, and controlling memory peak at 800MB, significantly improving user experience.
- Applied perceptual algorithms to create a automation plugin, increasing designers' workflow efficiency by 300%, reducing task completion time from 3 days to 2 hours.
- Optimized NPC pathfinding algorithms, reducing CPU consumption by 30 times compared to the original A* algorithm, enhancing real-time performance in complex game environments.
- Hangzhou Tonghui Technology Co., Ltd. SDE Intern Hangzhou, China Oct. 2019-May 2021
- Developed four VR/AR interaction scenarios using Kinect for depth camera assessment and training, providing tailored rehabilitation solutions, which reduced patient recovery costs by 29 times through personalized and efficient therapy plans.
- Analyzed kinematic data and physiological signals, leading to comprehensive patient status assessments, improving diagnosis accuracy by 15%.
- Utilized UGUI, SQLite3, and XCharts to visualize patient data, reducing medical staff workload by 30% through automated data collection and management, improving efficiency in patient care.
- Hangzhou Yunji Co., Ltd. HRM IT Support Intern Hangzhou, China
- June 2019-Aug. 2019 • Analyzed customer behavior and redesigned the portal system, improving task navigation and reducing average task completion time by 10 seconds per user.
- Built an intuitive UI using React, enhancing transparency in employee management and reducing UI-related support tickets by 5% in the 1st month.

University of Minnesota, Twin Cities - Undergrad Research Assistant Minneapolis, MN June 2018–May 2020

- Created a communication system for interactive visual narratives in scientific visualization.
- Designed a protocol for exchanging visual narratives, focusing on flow and volume visualizations.
- Integrated the system with email platforms for seamless communication.

Projects

ChatGPT-Installation

- Designed and implemented a multi-step user flow and interactive gameplay, enhancing user engagement and overall experience.
- Built and managed a structured backend using Flask-SQLAlchemy for scalable database management, ensuring organized data handling.
- Developed responsive frontend pages using HTML, CSS, and JavaScript, improving accessibility and user interaction.
- VR Driving Sim (Collaborative Project with Cornell Tech) 🔿
- Innovated in developing a car-drone hybrid system, implementing physics-based controls for seamless transition between modes.
- Enhanced visual fidelity through advanced post-processing techniques, integrating weather effects and holographic displays.
- Audio Visualization 📿
- Developed an audio visualization system using JavaScript, leveraging the WebAudio API for real-time audio parsing and Canvas for dynamic visual rendering.
- Applied Fourier transform and advanced sampling techniques for waveform decomposition and enhanced visualization accuracy.
- Glass Material Rendering in Unity3D 💭
- Engineered a low-cost, real-time glass rendering solution for Unity3D, incorporating MatCap textures and custom shaders for realistic reflection and refraction effects.
- Optimized the solution for real-time rendering on resource-constrained devices, addressing key computational challenges.



Memberships & Affiliations

- Georgia Tech Graduate SWE (Society of Women Engineers)
- Grace Hopper Celebration (GHC)
- Rewriting the Code (RTC)