

Zongzhen (Jack) Yang

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Innovative and passionate Mixed Reality (XR) developer with 6+ years' experience in building highly immersive virtual experiences, with a strong background in Human-Computer Interaction design and rhetorical communication.

EDUCATION

University of Wisconsin Madison | B.A. in Computer Science & Communication Arts August 2016 - June 2020
University of California San Diego | VR Development Professional Certificate July 2020 - December 2020
University of London | Specialization in Virtual Reality January 2020 - June 2020

PUBLICATIONS

Z. Yang*, B. Rubio-Perez*, M. Frising, M. A. Kats, "Oculus visualization of multispectral images", (Forthcoming, Fall 2021)
J. Salman, M. Gangishetty, B. Rubio-Perez, D. Feng, Z. Yu, Z. Yang, C. Wang, A. Shahsafi, D. Congreve, M. A. Kats, "Passive frequency conversion of ultraviolet images into the visible using perovskite nanocrystals", *Journal of Optics* (2021)

RESEARCH

Kats Laboratory of Applied Physics October 2017 - Present

Researcher (Matlab | Unity | Hyperspectral Imaging)

- Design and implement chromatic adjustment algorithms on hyperspectral images to simulate color vision deficiency.
- Develop algorithms to simulate human behavior during Farnsworth Munsell 100 Hue Test to examine the accuracy of chromatic adjustment.
- Program Virtual Reality simulations to visualize research findings through color-calibrated Oculus headsets.

UW Computer Graphics Lab September 2019 - May 2020

Researcher (Unity | ROS | HTC Vive)

- Implemented a virtual reality system that allows users to remote control robots with their hand and arm gestures by passing ROS (Robot Operating System) data between Unity and the robot through network socket with little latency.
- Created a motion playback system that dynamically replicates exact robot arm movement in a virtual environment based on real experimental robotic data.

EXPERIENCE

Holos Inc. February 2019 - Present

AR/VR Developer (Unity | Leap Motion | Blender)

- Build interactive networked VR content management and training simulation system with hand tracking interaction.
- Prototype and deploy key features, including multiplayer networking, hand gesture recognition and user onboarding interfaces, that are critical to winning \$750,000 research contract with the U.S. Air Force.
- Formulate and implement new design decisions and product directions based on user testing observations.

CS559 Computer Graphics Fall 2019 & Spring 2020

Teaching Assistant (THREE.js | GLSL Shader | Git)

- Provided tutoring and support to 350+ students on course content and assignments for 2 semesters.
- Assisted head faculty members with designing classroom material and graded over 500 student projects.