

Ziyan Xie

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Grounded in cognitive psychology and media informatics, I am interested in perceptual priors of human and machine vision through empirical studies, computational modeling, and interaction design in mediated realities.

EDUCATION

2022 – 2026 **University of California, Los Angeles (UCLA)**
B.S. Cognitive Science (Computing Specialization)
B.A. European Languages and Transcultural Studies (German)
GPA: 3.94/4.00

RESEARCH

2025
Los Angeles, CA **Perceptual Processing and Computational Lab, UCLA**
Research Assistant PI: Professor Zili Liu
Quantifying stereokinetic effects for biological and artificial vision.
Designed VR demos for pilot subjects, modeled psychometric functions, and built CV models for motion-based structure recovery.

2025
Munich, Germany **Media Informatics Group, University of Munich (LMU)**
Research Intern PI: Prof. Dr. Sven Mayer
Investigated effects of gamification on visual analytics in VR.
Designed a full study, conducted study with 27 participants, and performed eye tracking analysis.

2024
Los Angeles, CA **Connection Lab, UCLA**
Research Fellow PI: Professor Leonard Kleinrock
Explored creative UX design for online human connections.
Built web interfaces (React, Node, Express) modelling virtual bonds via emergent poetry.

MANUSCRIPTS

2025 “Motion-based optimization and perceptual priors for 3D recovery from optical illusions”. (with Z. Liu). In progress.

2025 “Rethinking speed–accuracy trade-offs in virtual reality: Effects of gamification on data visualization comprehension”. In progress.

SELECTED PROJECTS

2025 **See/Saw** Advisor: Professor Steve F. Anderson
Playable documentary examining optics and politics of cameras.
Prototyping an experimental art installation on human and machine vision technologies.

2024 **The Questions Concerning Video Game** Advisor: Professor David D. Kim
Undergraduate seminar (ELTS 88S – Spring 2025) on video game history and theory.
Developed syllabus, taught 25 students, received 100% “Very High” instruction rating.

2024 ***POiT*** Advisor: Professor Jeff Burke
Social app connecting people through emergent poetic lexicon.
Built interface with real-time interaction, 3D visualizations, and cross-device synchronization.

PRESENTATIONS

2025 “See/Saw: Engine, Camera, and Emulation”. Scheduled for presenting at Pacific Ancient and Modern Language Association (PAMLA) 122nd Annual Conference, San Francisco, CA.

2025 “Profane Steps: Digital Flâneur and Collective Choreography in Video Games”. Presented at Richard Macksey Research Symposium, Johns Hopkins University, Baltimore, MD.

2024 “Recur”. Indie game showcase with BlueX Game Studio at ChinaJoy x Game Connection Indie Festival, Shanghai, China.

AWARDS & HONORS

2025 James T. Henry and Meredith Henry Scholarship
\$6,000 research grant for “See/Saw”, UCLA Undergraduate Research Center.

2025 DAAD Scholarship for Research in Science and Engineering
€5,000 stipend for research internship in Germany, German Academic Exchange Service (DAAD) and German Research Foundation (DFG).

2024 Internet Research Initiative Scholarship
\$7,500 fellowship for interdisciplinary research (“POiT”) on the Internet, UCLA Henry Samueli School of Engineering and Applied Science.

SKILLS

VR/AR & Interactive Systems

Unity (Oculus XR, VIVE Open XR) · Unreal Engine · Three.js · WebXR · GLSL

Data Science & Machine Learning

R · Jupyter · TensorFlow · Keras · PyTorch · NLTK · OpenCV

Web Development

React · Node.js · Next.js · Git/GitHub · Vercel

Design Tools

Figma · Photoshop · Blender · Processing · p5.js · ArcGIS

AFFILIATIONS

2025 *Student Committee Member*, Wende Museum and Thomas Mann House

2025 Delta Phi Alpha (National German Honor Society)

2024 *Facilitator*, UCLA Honors Programs Undergraduate Student Initiated Education (USIE)

2023 *UX Designer*, ACM Studio at UCLA

2023 Visiting *Lecturer*, Veritas China

2022 *Game Designer*, BlueX Game Studio