Yunhao Lorie Chen

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EDUCATION

Carnegie Mellon University, Pittsburgh, PA 05/2026
Bachelor of Computer Science and Arts, Minors in Media Design and Intelligent Environments
Cumulative GPA: 3.6/4.0
Relevant Coursework: Creative Coding, Learning for 3D Vision, Computational Photography, Introduction to Machine Learning, Computer Graphics, Experimental Capture, Drawing with Machines, Introduction to Computer Systems, Great Ideas in Theoretical Computer Science

PROFESSIONAL EXPERIENCE

Research Assistant, Studio for Creative Inquiry, The School of Art at CMU 11/2024 – Present

- Designing and building interactive agentic interfaces in JavaScript/p5.js for real-time interaction with Gemini and ComfyUI-based generative AI models
- Extending ComfyUI pipelines to integrate state-of-the-art generative AI models, enabling new research and creative workflows
- Developing real-time robot arm control workflow and reference materials for student onboarding
- Creating 3D Gaussian Splatting guidelines and tutorials for student use

Teaching Assistant, The School of Art at CMU 08/2025 – 12/2025

- Designed and built 5+ interactive web interfaces enabling real-time user interaction with AI models including Gemini, ComfyUI pipelines, and vocal ML systems
- Extended open-source p5.js ComfyUI libraries to support cloud-based RunComfy instances, expanding accessible AI tooling for creative practitioners

Research Engineer Intern, Adobe Research 05/2025 – 08/2025

- Developed novel AI video and 3D processing workflows for After Effects in C++, contributing to unannounced research features

Research Assistant, The Robotics Institute at CMU 02/2024 – 12/2024

- Enhanced user experience and robot perception for the CoFRIDA robotic painting system using OnShape and 3D printing
- Demonstrated new capabilities at IEEE RO-MAN 2024 to an audience of 50+ and presented to a panel of expert judges

PROJECT EXPERIENCE

BXA Capstone: Hidden Point Removal in 3DGS for Heritage Institutions 09/2025 – Present

- Building an interactive web application using spark.js (World Labs) and Three.js for in-browser visualization and segmentation of 3D Gaussian Splats – room.loriechen.com
- Designing annotation interface allowing users to label spatial segments and document associated projects and provenance
- Researching applications of the Hidden Point Removal Operator (Katz et al., 2007) for 3DGS, advised by Professor Ioannis Gkioulekas

Cameo Glass Surface Reconstruction, *in collaboration with the Getty Museum* 10/2025 – 01/2026

- Developed and tested a novel 3D reconstruction pipeline based on Confocal Stereo methods, enabling interactive relighting for cameo glass artifacts
- Advised by Professors Golan Levin and Ioannis Gkioulekas, in collaboration with Getty Villa Imaging Studios

Dead Things in Jars, a virtual museum of wet specimens 09/2024 – 12/2024

- Built a 3D Gaussian Splatting capture and rendering workflow in Python and Unreal Engine for digitally preserving natural history specimens
- Secured $1000 in grants in partnership with the Center for PostNatural History and Carnegie Museum of Natural History

TECHNICAL SKILLS

Programming: JavaScript, HTML, Python, C, C++
Tools & Environments: p5.js, Git, Linux, GLSL, Processing, spark.js, Three.js, WebGL
Design & Prototyping: Figma, TouchDesigner, openFrameworks, ComfyUI
Software: Da Vinci Resolve, Blender, Adobe InDesign, Adobe Premiere Pro
Fabrication & Creative: 3D printing, Plotting, Robot Arm Simulation, Painting, Drawing, Photography

EXTRACURRICULARS

Chinese Student Association: Historian, VP Finance 09/2022 – 05/2025
SIGGRAPH Student Volunteer 08/2025

AWARDS AND HONORS

Maddy Varner Mastication Grant $500 04/2025
BXA Small Grants $500-$800 08/2024, 11/2024, 07/2025, 11/2025
Henry Armero Memorial Award for Inclusive Creativity Honorable Mention $250 04/2026
FRFF Microgrant $500 01/2024, 11/2025