

Sihui Lin

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EDUCATION

Sep 2022 – Jun 2026 **University of California, Los Angeles (UCLA)**
B.A. Architectural Studies, B.S. Statistics and Data Science | GPA: 3.94/4.0
Minor in Digital Humanities

EXPERIENCE

- Jan 2026 – Present
Philadelphia, PA **Bric & Brac Creative Studio**
Design Engineer | Product: thyself.cc
- Designed and implemented a full-stack reading list feature for a web-based reading curation platform, developing UI/UX, front-end, and back-end systems to support user interaction and content organization.
 - Conducted user interviews and iterative UX testing to refine interaction flow and improve usability.
- Jun 2025 – Present
Los Angeles, CA **UCLA cityLAB**
Undergraduate Research Fellow
- Curated and built digital features for spatial justice initiatives, including participatory mapping interfaces and community research archives.
 - Designed posters and digital user experiences for exhibitions and multimedia installations.
- Oct 2024 – Jun 2025
Los Angeles, CA **UCLA Office of Advanced Research Computing (OARC)**
Research Technology Assistant
- Rebuilt and restructured the front-end web interface to enhance accessibility and user experience.
 - Developed Python pipelines to parse and analyze HPC usage and institutional support metrics.
- May – Jul 2024
Swarthmore, PA **BlueX Game Studio**
Computational Designer
- Developed procedural systems for spatial layout in a 3D museum environment for a narrative game.
- Jul – Sep 2023, 2024
Shanghai, China **Telos Books**
Print and Digital Design Intern
- Designed print and digital layouts for art books, optimized assets for cross-platform publishing.

SELECTED PROJECTS

- Jul 2025 – Present **Encoding Transitions** | [GitHub](#)
Deep Learning, Spatiotemporal Transformer, Isovist Analysis, Representation Learning
- Developed a self-supervised model to learn spatial visibility shifts from egocentric depth panoramas using a TimeSformer encoder and isovist-based masking strategy.
 - Detected architectural threshold zones along walking paths, enabling quantitative comparison of perceptual transitions in 3D interior layouts.
- Jun 2025 – Present **Invisible City** | [GitHub](#)
Computer Graphics, Behavior Modeling, Agent-Based Simulation, Reinforcement Learning
- Built a procedural urban environment driven by agent circulation, integrating memory-based perception and real-time point-cloud visualization in Unity.
 - Designed agent behavior models, revealing how movement patterns shape urban legibility.
- Oct – Dec 2024 **The Green Divide** | [Story Map](#)
ArcGIS, QGIS, Python, SQL

- Analyzed environmental inequity across Los Angeles using spatial statistics on green-space accessibility, transportation networks, and demographic indicators.
- Created geospatial dashboards and data pipelines to support policy discussion on spatial justice design.

SELECTED CONFERENCES & EXHIBITIONS

- Apr 2026
Hsinchu, Taiwan
- 31st International Conference of the Association for Computer-Aided Architectural Design Research in Asia (CAADRRIA)**
Forthcoming paper “Encoding Transitions: Self-Supervised Learning of Architectural Thresholds with Masked Spatiotemporal Transformers”, [preprint](#).
- Dec 2025
Saint Julian, Malta
- 18th International Conference on Interactive Digital Storytelling (ICIDS)**
Showcased *Invisible City* at the “Kaleidoscopic Machines” [art exhibition](#).
- Nov 2025
San Francisco, CA
- Pacific Ancient and Modern Language Association (PAMLA) 122nd Annual Conference**
Presented *Invisible City* in the “Digital Humanities and Creative Praxis” session.
- Mar 2025
Baltimore, MD
- Richard Macksey Humanities Research Symposium**
Presented the paper “From First to Fine: Facsimile, Fine Printing, and Cultural Patronage in William Andrews Clark, Jr.’s Christmas Gift Books” at Johns Hopkins University; also published in [eScholarship, University of California](#).
- Feb 2025
Los Angeles, CA
- Los Angeles Geospatial Summit**
Presented [The Green Divide](#) at University of Southern California.
- Jul 2024
Shanghai, China
- ChinaJoy x Game Connection Indie Festival**
Showcased the indie game [Recur](#) with BlueX Game Studio.

AWARDS & HONORS

- 2025
- Edith and Lew Wasserman Scholarship**
Awarded \$6,000 for *Invisible City*, UCLA Undergraduate Research Center.
- 2025
- cityLAB Undergraduate Fellow Award**
Selected for a year-long fellowship in design research and spatial justice initiatives.
- 2025
- UCLA William Andrews Clark Memorial Library Research Prize**
Recognized as the best research project using resources from the Clark Library.
- 2024
- James T. Henry and Meredith Henry Scholarship**
Awarded \$4,500 for archival research on book history, UCLA Undergraduate Research Center.

SKILLS

Computer Aided Design

Rhino 3D, Grasshopper, Unity (VR), Unreal Engine, Blender, Adobe Creative Suite, Figma, Revit, ArcGIS, QGIS

Programming

Python, C++, C#, R, SQL, PostgreSQL, HTML/CSS, JavaScript, Three.js, p5.js, Next.js, Git/GitHub

Machine Learning & Computer Vision

PyTorch, TensorFlow, Scikit-learn, OpenCV, Keras