

Lukas Yao

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EDUCATION

Carnegie Mellon University

Junior, Expected May 2029 | Pittsburgh, PA

Bachelor of Architecture, Additional Major in Human-Computer Interaction (HCI)

- First and second-year projects selected to EX-CHANGE, Carnegie Mellon Architecture's annual exhibition and publication featuring distinguished student work.

WORK EXPERIENCE

BLA Design Group *Design Intern*

Jun 2026 – Jul 2026 | Vancouver, BC

- Developed 5 iterative visual concepts in response to client briefs, translating client needs into collages and spatial design proposals.
- Produced architectural details and massing concepts while iterating on design solutions across multiple client projects.
- Participated directly in client meetings and site visits, identifying constraints and proposing practical design solutions in real time.

PJ Dick Innovation Fund *Project Designer*

Aug 2025 – Jan 2026 | Pittsburgh, PA

- Researched traditional Northern Thai construction practices and translated findings into original joinery systems through sketches, technical drawings, and physical prototypes.
- Designed and fabricated 3 prototypes and a full-scale pavilion using original joinery systems in collaboration with Prof. Tommy Yang.
- Exhibited final research at the PJ Dick Innovation Fund representing Carnegie Mellon Architecture.
- Presented “(Re)calibrating by Hand: Tools, Love, and Collective Futures at the Scale of 18 Square Feet” at Carnegie Mellon's Future Normals Symposium, keynoted by anthropologist and 2025–26 Watson Chair Arturo Escobar.

RESEARCH & PROJECTS

Business Technology Group (Product Studio) *Product Designer – Hardware*

Jan 2026 – Present | Pittsburgh, PA

- Contributed to the design and deployment of a sensor system for tracking and reporting real-time occupancy across Carnegie Mellon fitness facilities.
- Iterated sensor and circuit-board enclosures from low- to high-fidelity prototypes using CAD, reducing receiver size by 40% and developing snap-fit/sliding assemblies in response to durability and maintenance issues observed during deployment.
- Analyzed sensor performance data and iterated on hardware enclosures as part of a cross-functional team, contributing to a ~95% reduction in daily counting error and extending maintenance intervals from 2 days to 14 days.
- Pitched the occupancy system and performance findings to Google Pittsburgh; prototyped hardware and software concepts for transitioning from laser to LiDAR.

Asian Education for Housing Solution Lab *Project Designer*

Jan 2026 | Chiang Mai, Thailand

- Invited by Chiang Mai University to represent Carnegie Mellon alongside fifth-year NCKU Architecture thesis students.
- Conducted field research with local communities across San Phranet, San Klang, and San Pu Loei to document traditional weir systems and their relationship to community life.
- Synthesized field research into technical and cinemetric diagrams; presented findings through an interactive exhibition at Chiang Mai University.

CMU Summer Undergraduate Research Apprenticeship (SURA) *Research Assistant*

Jun 2025 – Aug 2025 | Pittsburgh, PA

- Translated Northern Thai architectural joinery into comprehensive shape grammars and architectural drawings.
- Constructed 7 study models at increasing scales to explore original iterations of Northern Thai joinery using only hand tools, including chisels, Gyokucho Japanese pull saws, and machetes.
- Collaborated on the design and full-scale construction of a pavilion using traditional joinery techniques and hand tools.

SKILLS

Product & Visual Design: Figma, Photoshop, Illustrator, InDesign, Lightroom, Premiere Pro

3D Design & Prototyping: Rhinoceros 3D, Grasshopper, Physical Prototyping, Laser Cutting, 3D Printing

Programming & Web: C, Python, HTML

Languages: English (Fluent), Mandarin (Fluent), French (Proficient), Japanese (Limited Working Proficiency)