

Yanyi Liu

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Education

Massachusetts Institute of Technology, Cambridge, MA, USA Sep 2023 - Present

- Master of Architecture degree candidate with Departmental Fellowship and Stipend.
- Related Coursework in 21T.500 Theater Arts Production, 4.154 Architecture Design Studio.

Swarthmore College, Swarthmore, PA, USA Sep 2018 - Dec 2022

- Bachelor of Arts degree, double major in Mathematics and Art History. **GPA 3.91/4.00**
- Set Designer of the annual senior showcase. Department Scholarship. Social Impact Scholarship.

Production Experience

Set Designer, Fall 2022 Senior Capstone Production, Swarthmore College, PA, USA Sep - Dec 2022

- Led scenic design from initial concept through technical rehearsals, performances, and strike.
- Generated design models and drafting packages; coordinated execution with scenic shops and painters.
- Worked closely with the director and production team during tech; responded to rehearsal and performance notes with iterative design adjustments.
- Constructed painted floor, walls, and ceiling pieces in collaboration with set builder and scenic painter.
- Advised lighting design, props, and practicals rentals and purchases during set construction.

Live Camera Operator and Projection Designer, 2025 Fall Theater Arts Production, MIT, MA Sep - Dec 2025

- Developed video footage integrating AI-generated 3D worlds and 2D panoramic images for a live projection onto a 360 degree screen, using Worldlabs, Midjourney, Stable Diffusion, and Blender.
- Operating a film camera capturing live performances on stage, experimenting with dynamic camera movement, framing, and distortion to adapt to live actions and panoramic projections.

Set Designer, Fall 2024 Production, Wuming Student Theater, MIT, MA, USA Sep - Dec 2024

- Designed and constructed scenic design of a student production of a Chinese play, *Brazil*.
- Managed props rentals and purchases during rehearsals and tech.

Architectural Design Experience

Architectural Design Intern, 3XN Architects, Copenhagen, Denmark Mar - Aug 2025

Project: P57 Tower A, Zuidas, Amsterdam, Netherlands

- Contributed to the retrofit design of a landmark office tower within a large-scale masterplan transforming former bank headquarters into mixed-use developments, redefining its identity within the Zuidas skyline.
- Advanced massing and facade studies that shaped the tower's architectural expression, integrating strategies of transparency, proportion, and materiality, and presented renderings to clients biweekly.
- Produced floorplate design options optimizing structure reuse, core layout, and amenity spaces under strict planning constraints, through multiple drawing sets including detailed plans of each floor.

Architectural Design and Sustainability Intern, ZGF Architects, Washington DC, USA Jun - Aug 2024

Project: Johns Hopkins University Data Science and AI Facility, Baltimore, MD

- Conducted multi-objective optimization for the building performance of a 500,000 square feet research facility in Baltimore, Maryland, improved user experience and operational carbon by 50%.
- Optimized the geometries of façade shading and atrium skylight shading device through automated iterations of daylight, glare, and energy analysis with climate studio, ladybug, and grasshopper.

Prototype Designer, MITDesignX, MIT, MA, USA Jan - Dec 2024

- Developing prototypes for a self-assembled shelter system made with modular and scalable bamboo structures for internally displaced persons in Myanmar, expecting first pilot by August.
- Creating design options for roof enclosure systems and joint connections for the bamboo modules, iterating through 3D printing and assembling physical mock-ups for structural analysis.

Architectural Design Intern, Zaha Hadid Architects, Beijing, China Jun - Aug 2020

- Created a digital building material library and cataloged the physical material samples for over twelve projects in East Asia, increasing efficiency of material selection and communicating with manufacturers.
- Managed 30% of the CD and shop drawing revisions and interfacing with contractors on construction details, contributing to the major submission package of the Infinitus Plaza project in Guangzhou, China.

Skills and Interests

Language: English (Bilingual Proficiency), Mandarin (Native).

Computer skills: Vectorworks, Qlab, Enscape, Rhino, Adobe Suite (InDesign, Photoshop, Illustrator), Grasshopper, Revit, VRay, AutoCAD, SketchUp, QGIS, Climate Studio.

Interests: Art History, Photography, Flute.