

# Yanyi Liu

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## Education

- Massachusetts Institute of Technology**, Cambridge, MA Sep 2023 - Present
- Master of Architecture degree candidate with Departmental Fellowship and Stipend. **GPA 5.00/5.00**
  - Related Coursework in Computational Design and Optimization, Architecture Enclosures.
- Swarthmore College**, Swarthmore, PA 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.

## Professional Experience

- Architectural Design Intern**, 3XN Architects, Copenhagen, Denmark Mar - expected Aug 2025
- Working on massing studies, interior layout studies, and renders of tower projects in competitions.
- AR-1 Architectural and Sustainability Intern**, ZGF Architects, Washington DC, USA Jun - Aug 2024
- 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.
  - Consulted a national cultural institution in Washington DC pursuing ILFI Living Building Challenge, hosted design charette, produced cost estimate, and received positive feedback from stakeholders.
  - Created a firm-wide initiative to integrate AIA Framework for Design Excellence into design workflow, converting the framework into quantifiable goals and to-do lists by design phases.
- 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 12 projects, improving efficiency in material research and interfacing with contractors and manufacturers.
  - Managed 20% of the CD and shop drawing revisions of the Infinitus Plaza project in Guangzhou, China, and checked in with contractors and structural engineers weekly on revisions and construction details.
  - Produced and submitted 3 pre-schematic section drawings for the Unicorn Island project in Chengdu.

## Design Experience

- Prototype Designer**, MITDesignX, MIT, MA Jan 2024 - Present
- 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.
  - Interviewed 12 industry professionals specialized in reconstruction in conflicted zones, community engaged design, bamboo and locally sourced material construction, and found 2 long-term mentors.
- Set Designer**, instructed by Matt Saunders, Swarthmore College, PA Sep - Dec 2022
- Independently produced preliminary design models and final drafting packages including ground plans, sections, elevations, and three painted elevations, and submitted for construction.
  - Constructed painted floor, walls, and ceiling pieces in collaboration with the technical director and set painter; Advised light design, props, and practicals rentals and purchases during construction.

## Extracurricular Experience

- Social Impact Summer Scholar**, Asian Arts Initiative, Philadelphia, PA Jun - Aug 2022
- Launched the community radio station project by inviting local artists and community members and creating participation guidelines and safety protocols; produced three 1-hour shows by end of term.
  - Represented the organization and hosted the language table at five community events, successfully advertised and enrolled 10 more participants in the organization art programs.
  - Ran community fridge & food pantry and consulted over 8 houseless neighbors with shelter resources.

## Skills and Interests

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

**Computer skills:** Rhino, Grasshopper, Python, Revit, AutoCAD, SketchUp, Adobe Suite (Indesign, Photoshop, Illustrator, Lightroom), Vectorwork, QGIS, Climate Studio.

**Interests:** Set Design, Oil Painting, Large Format Film Photography.