Qilmeg Doudatcz

235 Albany St., Cambridge, MA, 02139 | qlmg954@mit.edu | http://qilmegd.com | (734) 546-7287

Education

Massachusetts Institute of Technology — *Cambridge, MA*
Master of Science in Architecture Studies, Computation Group (SMArchS Comp) — *Expected June 2027*
Master of Science in Computer Science (SMEECS)

University of Michigan — *Ann Arbor, MI*
Master of Architecture (M.Arch) — *May 2024*

Southeast University — *Nanjing, China*
Bachelor of Engineering, Civil Engineering (B.Eng) — *June 2021*

Experience

Architecture Representation Computation Group, MIT — *Cambridge MA*
Research Assistant — *Jan 2026 - Present*
- Developing immersive 3D viewing functions (VR/Gaussian Splatting) for the Design Heritage platform and building scalable pipelines for the digitization of global cultural heritage assets.

Livable Space Lab, MIT — *Cambridge MA*
Research Assistant — *Aug 2025 - Jan 2026*
- Co-authoring computational analysis of a built post-earthquake emergency shelter prototype in *Nepal*, utilizing Python based tools to evaluate the thermal safety of low-cost rice husk insulation systems.

Simulated Assemblies Lab, Umich — *Ann Arbor MI*
Research Assistant — *Sep 2024 - Jun 2025*
- Built motion capture asset libraries from self-recorded sequences using computer vision tools, developed as reusable Unreal Engine assets for *Minga*, a multiplayer game exploring reciprocal labor in *Chile*.
- Programmed interaction tracking systems in Unreal Engine using Blueprints and C++, capturing player movement and input behavior, with Grasshopper visualizations for gameplay heatmap analysis.

Empathy in Point Clouds Scan Lab, Umich — *Ann Arbor MI*
Visualization Specialist — *Aug 2023 - Jun 2024*
- Developed standardized 3D scanning and photogrammetry workflows (drone, DSLR, LiDAR) applied across fieldwork and artifact documentation in *Teotihuacan Mexico*, *Michigan*, and *Inner Mongolia*.
- Processed and archived spatial data from sites including *Arcosanti*, *the Power Center*, *St Mary Chapel*, *Duderstadt Center*, and the *Aerospace Engineering dome*.
- Designed and programmed media assets (point cloud animations, project videos, websites) used in lab grant proposals and research reporting.

University of Michigan Center for Academic Innovation — *Ann Arbor MI*
3D Artist Fellow — *Jan 2024 - May 2024*
- Contributed 3D models, terrain assets, and texture optimization for early-stage prototypes in *Black Performance as Social Protest*, supporting internal development and scene construction.
- Designed and built immersive VR and AR experiences for *More Room at the Table*, integrating narrative content across LED stage, headset, and mobile platforms, showcased in public exhibition.

Honors and Awards

- MIT School of Architecture and Planning Department Fellowship, Awarded, 2025
- Burton L. Kampner Thesis Memorial Award, Winner, 2024
- Royal Institute of British Architects President's Medals, Silver Medal Category, Nominee, 2024
- Taubman College Sensibility for Representation and New Mediums Award, Nominee, 2024
- University of Michigan XR Student Showcase, Best Use of XR for Research, Awarded, 2023
- Graduate Student Arts Funding Grant & Arts Integrative Interdisciplinary Research Grant, Awarded, 2023

Teaching and Academic Service

Workshops & Teaching (University of Michigan): ARCH 509, 662 (Instructor); ARCH 402, 314/324 (TA)
Invited Reviewer (University of Michigan): ARCH 432, 442, 662, 672

Skills

Design & Spatial Computing: Gaussian Splatting, Photogrammetry, LiDAR, Rhino, Blender, Adobe Suite
Programming & Media: HTML, CSS, JavaScript, Python, C#, Unity, Unreal Engine 5, , XR development
Languages: English (Fluent), Mongolian (Native), Chinese (Bilingual), Japanese (Conversational)