Dingning Cao

Cambridge, MA | dcao2028@mit.edu | 571-519-4359 | Portfolio | LinkedIn

Education

Massachusetts Institute of Technology
BS in Computer Science + Arts and Design (GPA 4.7)

- Designer of MIT 2028 Brass Rat; MITIT, Reality Hack, Infinite Magazine Art Director, HackMIT Marketing
- **Relevant Coursework:** Computer Vision, Computer Graphics, Algorithms, Linear Algebra, Machine Learning

Skills

Programming: Python, C# (Unity), JavaScript, HTML/CSS, React, Java, PyTorch, scikit-learn, ComfyUI, C++
Design & Modeling: Figma (UI/UX), Adobe Suite, Procreate, Blender (3D Modeling), Maya, Rhino

Research | Cambridge, MA

MIT Bill Freeman Group *May 2026 - Present*

- Multiple works under review for CVPR.

MIT HCIE Group Researcher (with Jiaji Li & Stefanie Mueller) *May 2025 - Present*

- *Y-zipper: 3D Printing Flexible–Rigid Transition Mechanism for Rapid Assembly* (CHI 2026 Accepted)
- *Xspine: Integrating Motion Sensing Capability into Dynamic Structures Using Multi-material FDM 3D Printing* (UIST 2025 Posters Accepted, CHI 2026 Accepted)
- *ShiftLens: Mechanically Actuated Optical Surfaces for Switchable Appearances on 3D Objects* (UIST Accepted)
- *MiXR: Harvesting and Recomposing Geometry from Real-World Objects for In-Situ 3D Design* (Under Review)

MIT CSAIL Researcher (with Antonio Torralba & Yael Vinker) *Feb 2025 - Sep 2025*

- *Doodle Agent: Exploring Freeform Visual Generation with Multimodal LLMs* (ICCV AI4VA Accepted)
- Developed full-stack platform for *SketchAgent* (Flask, React, SVG), extending the original work.

Experience

Post training - Rednote Dots FM *Incoming Winter 2026*

Machine Learning Engineer - Apple *Summer 2026*

- Built an agentic pipeline for stylized slide generation, transferring Keynote template into generated, style-consistent decks.
- Trained an on-device diffusion model using a flow-matching objective.

AI Researcher - Lica World *2026*

- Fine-tuned models for layout generation in poster and presentation design.
- *Evaluating Design Video Generation: Metrics for Compositional Fidelity* (ICML Workshop Accepted)

AI Technical Artist - miHoYo (Genshin Impact) *2025-2026*

- Trained miHoYo-specific LoRAs and built generation pipelines in ComfyUI.
- Created an independent agent-powered tool supporting upstream design for *Genshin Impact*.

Projects

Game Development & Creative Web Apps *2023-2025*

- **Threadspace** (Godot, GMTK 2025) Designed mechanics, art assets, and 8 levels with OOP components; coordinated playtests. ★ Ranked #48/9600 (Top 0.5%), featured at Boston Indie Game Festival.
- **Pizzapocalypse!** (Unity, iOS) Implemented tilemap levels, NPC AI, UI systems, and progression mechanics. ★ Published on iOS (4.8★ rating); won NHSGA Mass Appeal Prize.
- **Tea Time in Five** (Unity, Brackeys Jam 2025, 3D) Modeled Blender art assets and coded movement systems; managed team and playtesting. ★ Ranked 236/2299.
- **Dreamscape**: Full-stack journaling platform (React, Node.js, MongoDB) with media storage and collaborative editing. ★ Placed 5th in MIT WebLab.
- **Ablecademy**: iOS+iPad app built in Swift to assist children with Down syndrome; conducted user testing.

Awards

- Neurips 2026 Financial Assistance Award
- MIT 2026 Outstanding UROP Student Award
- MIT CSAIL Agentic AI Hakathon Winner
- CHI 2026 Interactive Demo Jury Honorable Mention
- USA Computing Olympiad Gold Division — Jan 2024
- VEX Robotics Regional Skills Champion & Design Award (World #12)