

REBECCA LIN

Researcher / Designer / Artist

rebeccayelin.github.io

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EDUCATION

Massachusetts Institute of Technology

PhD, Electrical Engineering and Computer Science 2027 (exp)
SM, Electrical Engineering and Computer Science 2025

University of British Columbia

BSc (Honors), Computer Science 2022

SELECTED EXPERIENCE

Roblox

2026

Applied Scientist Intern | Deformables Pod, Geometry Team

- Developed a procedural garment language for LLM-based authoring, translating high-level design intent into reusable patternmaking operations; enabled editable garment generation across diverse body shapes and avatars.

Adobe Research

2024–

Research Scientist Intern (2024); ongoing collaborator | Mentors: Mackenzie Leake, Michal Lukáč

- Created [Refashion](#), a modular garment design system combining reusable physical components and computational construction rules; built an interactive tool for pattern drafting, simulation, and optimized assembly; evaluated the system through a user study (UIST 2025). Coverage: MIT News / ASME

MIT CSAIL

2022–

Graduate Researcher | Advisor: Erik Demaine

- Formulated string routing for deployable structures as a graph optimization problem; co-developed minimum-length threading algorithms ([ITCS 2024](#)) and extended the framework to address fabrication constraints through friction-motivated turn costs ([arXiv](#)).
- Invented and prototyped a string-actuated system that achieves multiple configurations from a single underlying structure ([SCF 2024 demo](#)); now extending its theoretical foundations and fabrication methods with [Mariana Popescu](#).

MIT Media Lab

2024–2025

Graduate Researcher | Advisor: Zach Lieberman

- Co-developed a new graph-based design language for Islamic geometric patterns with Craig S. Kaplan; built computational tools to explore new design possibilities.
- Translated these designs into animation, engraving, textiles, and sculpture through computational design and fabrication, culminating in [Encoding-Decoding Constellations](#), a solo exhibition at MIT's Wiesner Gallery. Coverage: [Arts at MIT](#) / [Disintegrating](#) – NYT

Microsoft | Software Engineering Intern

2019, 2020

Cisco Systems | Cloud Infrastructure Engineering Intern

2019

SELECTED PUBLICATIONS & DEMOS

GOOGLE SCHOLAR

Graph-Based Design of Islamic Constellation Patterns. Preprint, 2026

PieceWise: An Evolving Inventory of Remixable T-Shirt Parts for Repeated Upcycling. SCF 2026 (demo)

Refashion: Reconfigurable Garments via Modular Design. UIST 2025

Graph Threading. ITCS 2024

TEACHING

MIT | Teaching Assistant (5 semesters)

2023–2026

Design & Analysis of Algorithms; Fundamentals of Programming; Preparation for Undergraduate Research

UBC | Teaching Assistant (2 semesters)

2020–2021

Intermediate Algorithm Design & Analysis; Introduction to Basic Algorithms

FELLOWSHIPS

MathWorks Engineering Fellowship, MIT

2026–2027

Design Fellowship, MIT Morningside Academy for Design

2025

NSERC Postgraduate Scholarship – Doctoral (PGS-D)

2024–2027

Stata Family Presidential Fellowship, MIT

2022–2023