# Jacob Lehrer

339-203-1677 - jacobylehrer@gmail.com - <u>Jacoblehrer.com</u> - Github: <u>Jacobl-h</u>



#### PROFESSIONAL EXPERIENCE

#### LMDA LLC | Boston, MA

Co-Founder, Freelance Designer (June 2025 - Present)

- Directed Schematic Design and Design Development for a 6,200sf animal care facility in Braintree, MA, as Project Manager and Lead Designer.
- Developed the Sentient Environment Engine algorithm for analyzing dog behavior using a custom-built Computer Vision algorithm, Agent-Based Model with state machines, and Al calibration, culminating in an 80% increase in permitted capacity.
- Managed Interior Designer, Architect of Record, specialized MEP Firm, and directed permitting meetings for special permit approval.

## MIT Mathematics Department | Cambridge, MA

Project Coordinator (July 2023 - April 2025)

- Managed departmental space allocation, operations, and facilities integration across 94,000 square feet, optimizing for over 250 occupants.
- Directed three design and renovation projects, encompassing space planning, material selection, and coordination of execution, enhancing functionality for the department.
- Spearheaded sustainability initiatives, including MIT's first centralized bin retrofitting, which saved 19,000 bin liners annually, contributing to LEED and TRUE targets in collaboration with the Sustainability, Custodial, and Facilities offices.

## DBI Projects | New York City, NY

Project Management Intern (May 2021 - February 2023)

- Contributed to managing project budgets, schedules, and deliverables for commercial and educational developments exceeding \$14,000,000, ensuring alignment with goals.
- Engineered and deployed a custom-coded Excel project scheduling system.

## Riverstone Sustainability | Boston, MA

Sustainability Consultant (November 2019 - December 2021)

• Executed data analysis and prepared technical documentation for two LEED construction projects, supporting Wentworth Institute of Technology's achievement of a top 10 national sustainability ranking.

## **EDUCATION**

## Southern California Institute of Architecture, SCI\_Arc | Los Angeles, CA

• Masters of Architecture II - (2025 - 2027)

## Massachusetts Institute of Technology | Cambridge, MA

• MIT Advanced Study Fellow - (2024)

o 4.325 - Artist, Architect, Tinkerer | 4.505 - Design Computation | 18.01 - Calculus

## Wentworth Institute of Technology | Boston, MA

- Bachelor of Science, Architecture (2019 2023)
  - Concentration on Emerging Technology

#### TECHNICAL SKILLS

Revit	Adobe Illustrator	3D Printing	KUKA Robotics
Rhino	Adobe InDesign	Woodworking	Python
Grasshopper	Cinema4D	Laser Cutting	Computer Vision
Ladybug	Lumion	LEED	Project Management

#### SPEAKING AND TEACHING

Parametric Architecture | Instructor

- <u>Design Tech-Talk 6.0</u> Presentation on Sentient Environment Engine
  - o Computer Vision, ML Optimization, Psychology of Space, DepthMapX
- Grasshopper Essential Plugins for Beginners 101 4 Hours of Recorded Workshops
  - Lunchbox, Parakeet, Kangaroo, Weaverbird, Mesh+
- Environment-Reactive Computation (With Ladybug) 8 Hour Live Class, 80+ Attendees
  - o Reviewed setup, structuring, analysis, and implications of Ladybug Simulations

#### Green Building Matters Podcast | Invited Guest

• Episode 274: Three LEED Credentials Before Graduation

#### LilyGrace Lifestyle Podcast | Invited Guest

• Episode 58: The Youngest LEED Certified Architect

### PROFESSIONAL CERTIFICATIONS

• LEED AP BD+C (June 2021), O+M (July 2022), ND (April 2023)

#### **PUBLICATION**

### Future[tectonics] by Parametric Architecture | Contributing Author

- Future[tectonics]: Exploring the Intersection of Technology, Architecture and Urbanism
  - o Garbage In, Garbage Out: How Language Models Can Reinforce Biases

#### **ACTIVITIES + VOLUNTEERING**

## **Member |** Built Environment Plus - *Living Future Community Co-Facilitator*

- Promote the transformation of socially just, culturally rich, and ecologically restorative communities throughout Boston and New England.
- Advocates for the Living Building Challenge and provides education for designers.

## Pattern Maker + Designer | IIDANE Fashion Show (2019-WIT, 2024-Perkins & Will)

- Assisted the Wentworth team in winning the Best School Entry 2019 with a custom coat.
- Designed 2D patterns for 3D garments for Perkins & Will with CLO3D and by hand.

## President + Founder | Wentworth Sustainability Society

- Nominated for Student Organization of the Year, 2023
- Educated 30+ students and helped six pass LEED accreditation tests.

### **ARTICLES**

#### MIT News

• 7/03/24: MIT 2024 Summer Reading List - Future[tectonics]

#### ArchDaily

• <u>2/28/24: Parametric Architecture March Workshops</u>

#### Parametric Architecture

- 4/08/24: Future[Tectonics] Launch Announcement
- 3/18/24: Insights from the Environment-Reactive Computation Workshop
- 3/02/24: Environment-Reactive Computation (With Ladybug)
- 1/29/24: Insights and Innovations from CD NEXT 15

#### Wentworth News

- 4/26/2023: Sustainability Society Helps Students Get Certified for Energy and Environmental Design
- 9/01/2021: Architecture Student Among Youngest to be LEED Certified
- 3/31/2020: Unique Library Design Incorporates Eco-Friendly Elements

#### **EXHIBITED WORK**

## Shigeiru Ban Paper House For LA | SCI\_Arc Gallery, October 2025

• Installation (Wood Fabrication), This proposal outlines a plan for constructing temporary, affordable housing in Altadena to help residents return to their neighborhoods after the devastating 2025 wildfires. The design is inspired by Shigeru Ban's humanitarian work, using low-cost, easy-to-assemble materials that can be quickly erected by unskilled labor.

#### Mathematical Sculptures | MIT Mathematics Permanent Collection

• 2 Works, Sculpture (3D Printing, Laser cutting), Mathematics is often a world of the theoretical. I developed and fabricated sculptures, bringing abstract ideas into physical space to celebrate two distinguished mathematicians, Elon Lindenstrauss and Lenka Zdeborová.

## Spark - Bird's Eye View | Boston, March 2024

• 8 Works exhibited, Photography (Digital and Film), Cities and nature are two systems that exist in parallel, and deriving similarities from a bird's-eye view allows us to examine and harmonize with natural systems.

#### Pancakes & Booze | Malden, October 2022

• 3 Works exhibited, Mixed-Media, Climate-crisis focused critique of international trade of materials to greenwash, destroying the environment through mass resource extraction.