Lee Marom

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Education

Massachusets Institue of Technology

MS Architecture Studies | Computation and Design — — — — — — — — — — — — — — — 2024-Current

Stanford University

MS Mechanical Engineering | Depth: Biomechanics and Product Realization — — — — — — — — — 2018-2020 | GPA 3.9

BS Product Design Engineering — — — — — — — — — — — — — — — — — — — 2014-2018 | GPA 3.8

Professional Experience

Founder | RPRSNT lab

August 2023 - Present | NY

- Founder of RPRSNT Lab, a New York State-registered design studio focused on sustainable engineering and fabrication.

- Provided clients with mechanical engineering design consultation, specializing in electromechanical systems, material testing, and fabrication.

Mechanical Engineer | Breakfast Studio

October 2021 - August 2023 | Brooklyn | NY

- Engineered electromechanical systems for large-scale kinetic sculptures, integrating motion control systems, mechanical linkages, and sensor integration.

- Managed technical drawings, finite element analysis (FEA) for load-bearing components, and Design for Manufacturing (DFM) in collaboration with overseas fabrication partners.

- Lead engineer for Tiffany & Co. pop-up installations: Developed design documentation, conducted structural integrity testing, and oversaw system integration and quality control across New York, Dubai, and Seoul.

Mechanical Engineer | Future Forms

November 2020 - May 2021 | San Francisco | CA

- Worked with the architecture team to incorporate fabrication and mechanical engineering models into parametric design scripts for production purposes.

- Component and assembly design, prototyping and project installation for permanent art installations for Uber campus in San Francisco and Intuitive Surgical campus in Sunnyvale.

Mechanical Engineer | Box Shop

September 2019 - October 2020 | San Francisco | CA

- Designed mechanical components and assembly fixtures for large-scale art installations, ensuring manufacturing efficiency and durability for high-exposure environments.

- Prototyped and assisted in producing large-scale art installations for Stanford University and Golden Gate Park in San Francisco.

Product Designer | Happy Hands X Splash

Dec 2017 - Jun 2018 | Design for Extreme Affordability | Stanford University

- Co-creator of Happy Hands, a low-cost collapsible sink designed for non-profit distribution in developing countries.

- Lead product design and user research through human-centered design philosophy in Kolkata, India. Saw project from concept to realization.

Production Engineer Intern | TAT Technologies

July 2017 - September 2017 | Israel

- Oversaw production processes, implemented tool improvements, and participated in the Material Review Board (MRB) for aerospace components.

- Assisted with quality control and ensured adherence to production standards for thermal management systems.

Teaching Experience

Product Realization Lab | Teaching Assistant | Stanford University

Aug 2018 - Jun 2020: Six Academic Quarters | Product Realization Lab | Stanford University

- Taught >1000 students design for manufacturing and fabrication at the Stanford Product Realization Lab as shop TA across all fabrication facilities. Functioned as the wood shop specialist from 2019-2020, including shop oversight.

ME 203: Design and Manufacturing | Teaching Assistant | Stanford University

Graduate Level Course | Mechanical Engineering Department | Stanford University

Aug 2018 - Jun 2020: Six Academic Quarters

ME 103: Product Realization, Design and Making | Teaching Assistant | Stanford University

Undergraduate Level Course | Mechanical Engineering Department | Stanford University

Aug 2018 - Jun 2020: Six Academic Quarters

Technical Skills

- **Mechanical Design:** Electromechanical Systems Design, CAD (SolidWorks, Rhino 3D, Grasshopper)

- **Fabrication**: CNC Programming (HSMWorks), Laser Cutting, 3D Printing, Vacuum Forming, Sheet Metal Work, Sandcasting, Welding, Woodworking, Milling, Turning, Silicone Casting, Silversmithing, Extrusion Design

- **Microscopy & Laboratory Techniques:** SEM, AFM, Optical Microscopy, STM

- **Engineering Analysis**: Structural Analysis, Material Stress Testing, Finite Element Analysis (Abaqus, ANSYS)

- **Programming**: MATLAB, Python, Arduino

- **Specialized Software**: Gwyddion, ImageJ, Osirix, Adobe Suite: Illustrator, Photoshop, InDesign

Awards and Patents

- Patent: Mechanical Non-Binary Sway Tile Display (US Patent 12129646) | Oct 2024
  Developed a motion control system for large-scale kinetic art installation as part of the engineering team at Breakfast Studio

- MIT Architecture Departamental Fellowship | 2024

- Stanford Women in Toys Scholarship Award Recipient | 2018