# Jeremy Chen

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## EDUCATION

**University of California, Berkeley, USA**

*Master of Architecture*                                                                                    **Aug. 2021 - present**

*Graduate Certificate in New Media, Applied Data Science, Geospatial Information Science and Technology*
• Highlight Course: Robotic Fabrication and Construction, Interaction Design, Agile Engineering Practice,
            Principles and Techniques of Data Science, Research Design and Application for Data and
            Analysis, Theory and Practice of Tangible User Interfaces, Daylighting in Architecture

**National Taiwan University (NTU), Taiwan**

*Bachelor of Science in Civil Engineering*                                                       **Sep. 2015 - Jun. 2020**

*Best All-Round Student Award, Department of Civil Engineering, NTU*                    **2018, 2019**
• Highlight Course: Shape Aesthetics and Design, Design and Construction of Wood Structures (I),
            Physical Model Design Laboratory, Stage Craft (I), Color Scheme,
            Keystone Challenge, Capstone Challenge

*Architectural Engineering Program*                                                               **Sep. 2015 - Jun. 2020**
• Highlight Course: Building Environment Control, Human Environment Relations,
            Behavior and System of Architectural Structure

**Bauhaus-Universität Weimar, Germany**

*Exchange Student*                                                                                        **Sep. 2019 - Mar. 2020**
*Government Scholarship for Studying Abroad, Ministry of Education Taiwan*            **Full Scholarship**
*Scholarship for Studying Abroad, Department of Civil Engineering, NTU*
• Highlight Course: Digital Cultures: An Introduction for the Digital Professions

## WORK EXPERIENCE

**Morphing Matter Lab**                                                                               **Jun. 2024 - present**

*Student Intern*

**City Science Lab @ Taipei Tech**                                                             **Jul. 2023 - Aug. 2023**

*UROP Intern*
• Lost Item Retrieval Using Swarm Intelligence

**Mu. Studio**                                                                                              **Jul. 2022 - Aug. 2022**

*Research Intern*
• Design for glueless fabrication / installation and resistance to fire
• Use computational methods to explore geometric timber slab designs that are
   adhesive-free, environmentally friendly, less costly to manufacture, and fire-resistant.

**NCREE - NTUCE Joint Artificial Intelligence Research Center**            **Jul. 2019 - Aug. 2019**

*Summer Intern Program*
• Use parametric modeling to generate different geometric patterns
• Learn Molecular Dynamics (MD) simulation methods
• Predict properties and performance of composite materials

**Envision Engineering Consultants (EEC)**                                            **Jul. 2018 - Aug. 2018**

*Structural Intern*
• Structural Design & Simulation; Review structural design drawings
• Communicate with architectural firms
• Create presentation drawings and materials, Cost Estimating

**KRIS YAO | ARTECH**                                                                           **Jul. 2017 - Apr. 2018**

*Architectural Intern*
• Design Development: 3D computer modeling, physical model making
• Review design drawings and construction drawings
• Meeting with engineering consultants, contractors and clients

**Wooden Structure Design - Teaching Assistant**                               **May. 2020 - Jun. 2020**

*Redesign and Reconstruction of Existing Wooden Pavilion*
• Facilitate communications between students, teachers, and construction contractors
• Teach woodwork, metalwork, and glulam beams production

**Keystone Challenge & Joint Workshop - Teaching Assistant**

*Interactive Light & Sound Installation  (New Media Art + Architecture + Engineering)*  **Feb. 2019 - Mar. 2019**

*Floating Structure Under Extreme Weather Conditions   (Architecture + Engineering )*  **May. 2019 - Jun. 2019,**
- Design Development and Structural Analysis Assistance  **Jun. 2020**
- Communications between different fields of students, teachers and local residents

**Fundamentals of Architectural Design - Teaching Assistant**  **Apr. 2019 -  Jun. 2019**
- Design Development Assistance & Woodwork Tutor of  1:1 wooden chair project

## WORKSHOPS & ACADEMIC ACTIVITIES

**2022/2023 ABM DigitalFUTURES Workshop**

*Institute for Computational Design and Construction (ICD), University of Stuttgart*

*Department of Architecture, Tongji University*
- Experiments in Agent-Based Collective Robotic Construction  **Jun. 2023**
- Use Agent Based Modeling to design an Inflatable Interactive Structure  **Jun. 2022**

**2022 Robotic Rod Bending Workshop**  **Aug. 2022**

*Department of Architecture, National Cheng Kung University (NCKU)*
- Discrete Design and Robotic Fabrication

**The Future of Construction Symposium + Workshops & Tours, ETH Zürich**  **Jun. 2022**
- Symposiums on Construction Robotics and Computational Design for Sustainable Construction

**2021 Shape Machine Workshop**  **Jan. 2021**

*Graduate Institute of Architecture, National Chiao Tung University*
- Shape Grammar & Shape Machine

**2020/2022 Sinking Legacy Workshop**  **Jul. 2020 - Aug. 2020**

*Department of Architecture, Tamkang University*  **Jul. 2022 - Aug. 2022**
- Form-Finding & Fabrication; Robotic & AR Timber Fabrication; Digital design & Optimization

**Form-Finding Workshop**  **Feb. 2020**

*Structural Design and Special Structures, Delft University of  Technology (TU Delft)*
- Exploration on digital and physical form-finding models

**2019 Student Summer Seminar**  **Jul. 2019**

*Architectural Institute of Japan, Tokyo*
- Structural Art of Accumulation / Transformation - ASDO Awards

**Structural Design Workshop**  **Apr. 2018, Apr. 2019**

*Department of Architecture, National Cheng Kung University (NCKU)*
- Designer and team leader of a structure art that can be easily carried, assembled and demolished

**2018 Tsinghua Architecture and Culture Seminar**  **Jul. 2018**

*School of Archicture, Tsinghua University, Beijing*
- Learn the history and theory of architecture and urban designs in Beijing

**NTUST - Chulalongkorn University Joint Architecture Design Studio**  **May. 2018**

*Department of Architecture, National Taiwan University of Science and Technology*
- Tutor of Behavior and System of Architectural Structure

**Unidentified Funicular Objects**  **Jul. 2017**

*Block Research Group, ETH Zürich*
- Collaborate on a large scale form-finding structural art with engineers, architects and artists

## SKILLS

**Manufacturing**
- Metalwork, Woodwork, Robotic Fabrication, OMAX Waterjet Cutting, Structural and Architectural Modeling, Laser Cutting, 3D Printing, CNC, Zund, Composite Material, fundamental synthetic biology wet lab skills

**Digital Tools**
- Rhinoceros 3D, Grasshopper, KUKA prc, ETABS, Climate Studio, AutoCAD, Blender, Fusion 360, Vray, Photogrammetry | Photoshop, Illustrator, Lightroom, Premiere Pro, InDesign, Figma | Java, Python, Pandas, Arduino, Processing, P5.js

## OTHER ACTIVITIES

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|---|---|
| **iGEM@Berkeley** | **2024** |
| **Bioprinting@Berkeley** | **2023** |
| **Cal Origami** | **2022** |
| **NTU Civil Engineering Buddy Program** | **2018, 2020** |
| **NTU Civil Engineering Student Association** | **2017 - 2018** |
| *Vice President, Department Journal Co-editor* | |

**Photographer**

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|---|---|
| NTU Japanese Language and Literature | **2017, 2018** |
| Annual Performance | **2018** |
| Graduation Performance | **2016** |
| NTU Art Festival | **2016** |
| NTU College of Bio-Resources & Agriculture Prom | |