

# Megan Teng

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## EDUCATION

### University of California, Berkeley

#### **Ph.D. in Mechanical Engineering** (Expected Graduation, 05/2027)

08/2022-Present

Berkeley, CA

- With Department Fellowship
- Overall GPA: 4.0/4.0

### National Taiwan University (NTU)

#### **B.S. in Mechanical Engineering**

09/2016-06/2021

Taipei City, Taiwan

- Overall GPA: 4.2/4.3, Engineering major GPA: 4.2/4.3
- Relevant Coursework: Linear Control Systems, Computer-aided Engineering Drawing, Electrical Engineering Fundamentals (all graded A+)

#### **B.B.A. in International Business**

09/2016-06/2021

Taipei City

- Business major GPA: 4.3/4.3
- Ranked First in the year 2016 and 2017 and graduated fourth in 81 business students.
- Relevant Coursework: Marketing Management, Global Brand Management, Marketing Research, Financial Engineering, Management (all graded A+)

## PUBLICATIONS

- F. Xia, Y. Peng, S. Pala, R. Arakawa, W. Yue, P.-C. Tsao, C.-M. Chen, H. Liu, **M. Teng**, J. Park, and L. Lin, "High-Spl And Low-Driving-Voltage PMUTs By Sputtered Potassium Sodium Niobate," presented at MEMs 2023, Munich, Germany, Jan. 2023 01/2023  
Munich
- Chun-Yeon Lin, **Megan Teng**, and Yi-Chin Wu, "Distributed Current Source Method for Modeling of Magnetic and Eddy-Current Fields in Sensing System Design," *IEEE Access*, vol. 11, pp. 2928–2940, 2023, doi: 10.1109/ACCESS.2022.3232846. 01/2023  
Taipei
- Chun-Yeon Lin, Yi-Chin Wu, and **Megan Teng**, "Development of a Magnetic/Eddy-Current Sensing System For Simultaneous Estimation of Electrical Conductivity and Thickness in Non-Ferrous Metal Plates," *IEEE/ASME Transactions on Mechatronics*, pp. 1–12, 2022, doi: 10.1109/TMECH.2022.3199821. 12/2022  
Taipei
- Yi-Chin Wu, Hsi-Yen Ma, Zhong-Hsiang Kuo, **Megan Teng**, and Chun-Yeon Lin, "Electromagnetic Tracking System Design for Location and Orientation Estimation," in *2022 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM)*, Sapporo, Japan, 2022, pp. 1256–1262. doi: 10.1109/AIM52237.2022.9863273. 7/2022  
Sapporo, Japan
- Chun-Yeon Lin, Yi-Chin Wu, **Megan Teng**, Kuan-Cheng Chen, "Time Domain Characteristics of Metal Magnetic/Eddy-current Sensor," in *the 18th International Conference on Automation Technology* 11/2021  
Kinmen, Taiwan

## AWARDS

- UC Berkeley Mechanical Engineering Departmental Doctoral Fellowship
- Best Paper Competition-Silver (*Automation 2021 in Kinmen, Taiwan*)
- Dean's List (5% students, alternative translation: Presidential Award) 6 times in 2016-2021
- Freshman Chinese Professor Recommended Essay in 2016

## RESEARCH & WORK EXPERIENCE

### Liwei Lin Lab supervised by Prof. Liwei Lin, UC Berkeley

#### **Graduate Student Researcher**

08/2022 – Present

Berkeley, CA

- Address the ringdown problem in piezoelectric micro-ultrasonic transducers

**Mechatronics and Intelligent Automation Research Laboratory supervised by Prof. Chun-Yeon Lin, NTU**

**Research Assistant (40hrs/week, Mon.-Fri.)**

- Developed non-destructive eddy current sensors for ferrous/non-ferrous metal plates with experiments and numerical analysis
- Conducted FEA with COMSOL to validate the Distributed Current Sources method used in sensor design for thickness and conductivity measurements

08/2021 – 07/2022  
Taipei, Taiwan

**Undergraduate Researcher**

- Studied the frequency response of the induced magnetic flux caused by eddy currents for sensor development.
- Conducted experiments to build a reference map for Eddy current sensors with MATLAB and LABVIEW

09/2020 – 07/2021  
Taipei, Taiwan

**Fluid Instability Laboratory supervised by Prof. Chun-Ti Chang, NTU**

**Undergraduate Researcher**

- Designed an enhanced high-pressure boiler without flanges that has 90% less installation time and 1.5 times pressure rating
- Collaborated with industrial manufacture Senter Ltd. to produce the boiler
- Built a C/C++ library for quasi-equilibrium liquid nitrogen simulations referencing CoolProp library

01/2021 – 07/2021  
Taipei, Taiwan

**TEACHING EXPERIENCE**

**Teaching Assistant, NTU**

- Host discussion sessions and office hours to answer students

09/2021 – 01/2022  
Taipei, Taiwan

**Physics Lecturer, NTU Tutor Team**

- Teach high school physics to help students prepare for university entrance exams.

09/2020 – 07/2022  
Taipei, Taiwan

**LEADERSHIP & EXTRACURRICULAR EXPERIENCE**

**Member/Director of Art & Publicity, NTU Fencing Varsity Team**

- Recruited more than double the new members than previous year
- Designed the new team logo for 2016-2020
- Trained with international athletes from Japan, Hong Kong, and Malaysia

09/2017 – 01/2019  
Taipei, Taiwan

**Receptionist, NTU Student Counseling Center**

- Managed the operation of the center with daily communication with counselors and students

07/2018 – 08/2018  
Taipei, Taiwan

**Student Mentee, NTU Dept. of International Business**

- Engaged with mentors from the industries
- Formulated new marketing and management strategies for an E-commerce startup in medicine

09/2017 – 01/2018  
Taipei, Taiwan

**Volunteer Student Service Provider, NTU International Affairs**

- Supported international students from Europe, Central America, and Southeast Asia

08/2017  
Taipei, Taiwan

**Volunteer, XXIX Summer Universiade**

- Received officials from the International University Sports Federation (FISU) with members from around the world

08/2017  
Taipei, Taiwan

**Volunteer, World Vision Taiwan**

- Assisted the operation of Children Development Center

03/2017 – 05/2017  
Taipei, Taiwan

## SKILLS

<b>Programming</b> C/C++ MATLAB LabView R Python	<b>CAD/CAM &amp; 3D modeling</b> Autodesk Inventor Autodesk AutoCAD MasterCAM RDwork Blender	<b>Video/Photo Editing</b> Adobe Illustrator Adobe Photoshop Adobe Premiere Adobe Audition Adobe Lightroom PowerDirector	<b>Others</b> Carpentry Metal Turning Metal Milling Metal Drilling Metal Soldering Altium
<b>Language</b> Chinese (native) Cantonese (basic) English (fluent)	<b>Finite Elements Analysis</b> COMSOL Multiphysics ANSYS fluent	<b>Airfoil Design</b> QBlade Xfoil	<b>Musical Instruments</b> Piano French Horn

## CERTIFICATES & TESTS

- TOEIC Listening and Reading Test 990 (Golden Certificate) – Listening 495/Reading 495
- TOEFL 119 – Reading 30/Listening 30/Writing 30/Speaking 29
- GRE 338 – Verbal 168/Quantitative 170/Analytical Writing 5.0
- Autodesk Inventor Certified User (ACU)
- Certification for Proficiency in Teaching Chinese as a Second/Foreign Language