Yuan Yao

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EDUCATION

·Jilin University *2021.9-now*
School of mechanical and aerospace engineering — GPA and Percentage: 3.76/4, rank within top 5%

·Tohoku University *2023.10-2024.8*
Exchange student, Robotics division — Junior Year Program in English (JYPE program)

RESEARCH EXPERIENCES

·Micro Electro Mechanical Systems Lab; Tanaka Shuji Laboratory *2023.10-2024.8*
Exchange student advised by Prof. Shuji Tanaka and Assistant Prof. Andrea Vergara — Tohoku University

– **Oral presentation** on the 37th International Microprocesses and Nanotechnology Conference (**MNC 2024**) [Slides] [Abstract]
– A paper under review for the conference extended special issue: **Yuan, Y.**; Vergara, A.; Tanaka, S. Feasibility study of layer separation using 2D patterned internal laser damage in silicon. ***Japanese Journal of Applied Physics***[Paper manuscript]
– Experienced in clean room workflows and equipment operation:

Mask design	Mask Fabrication	Photolithography	Deep silicon etching (DRIE)
Sputtering	Ion beam milling	PVD/CVD	Optical/SEM/Infrared microscopy

·Key Laboratory of CNC Equipment Reliability, Ministry of Education *2022.9-now*
Undergraduate research program advised by Prof. Hu Huang — Jilin University

– National Undergraduate Training Program for Innovation and Entrepreneurship(NCSIETP), **National Excellent Conclusion, securing research funding of 10,000CNY**
– Publish an Utility Model Patent: H. Huang, **Y. Yao**, Y. Huang, and H. Wu, "An ultrasonic vibration device for vibration-assisted scratch testing," Chinese Patent CN 220649966U, Mar. 22, 2024.[Patent content]
– Published a paper: Huang, Y.; Wu, H.; **Yao, Y.**; Zhao, H.; Huang, H. An Ultrasonic Vibration Scratch Tester for Studying the Scratch Characteristics of Materials under Ultrasonic Vibration Contact Status. ***Actuators*** 2024, 13, 262. https://doi.org/10.3390/act13070262

SKILLS

·Languages: Native Mandarin; Fluent English including IELTs: 7.0 (6.5), CET4: 622, CET6: 559, GRE: 320; Basic Japanese

·Professional Software: <u>Proficient</u>:Solidworks, Autocad; <u>Intermediate</u>: Catia; Ansys, Abaqus, Recurdyn; Matlab Simulink, Origin

·Basic Programming Skills: Python, Matlab, C#, LaTeX

HONORS AND ACHIEVEMENTS

· **National second prize**-*National University Students' Advanced Drawing Technology and Product Information Modeling Innovation Competition*
Content: Advanced Engineering drawing and proficient in CAD software ***Blog link:*** [EN] [CH] *2022.8*

· **Provincial first prize** -*China College Students Engineering Practice and Innovation Competition*
Content: Designed and fabricated an auto-turning mini-car prototype ***Blog link:*** [EN] [CH] *2023.11*

· **Scholarship for Study in Japan under Agreement**-*Japan Student Services Organization* *2023.10-2024.8*

· **First-class scholarship** -*Jilin University* *2023.11/ 2022.11*

· **Excellent student** -*Jilin University* *2023.11/ 2022.11*

· **Excellent student leader** -*School of Mechanical and Aerospace Engineering, Jilin University* *2022.11*