YIZHAO GUAN

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EDUCATION

The University of Tokyo *October 2019 - September 2021(Expected)*
- Precision Engineering.

Tohoku University *October 2015 - September 2019*
- Mechanical and Aerospace Engineering (IMAC Program, an international course taught in English).

High School Afflicted to China Fudan University *September 2012 - August 2015*

RESEARCH EXPERIENCE

(Work with professors and doctors as several international groups from British, India, Indonesia, Thai, etc.)

Fluid Dynamic (Ohnish Lab) *Fall Semester 2016*
- Simulation of the airflow around the wing under applied laser beam and analyses lift improvement.

Fine Nano- Mechanics (Miura / Suzuki lab) *Academic year 2017*
- Ab initio simulation for Graphene

Optical super-resolution (Takahashi / Michihata lab) *Academic year 2019-2021*
- FDTD simulation for standing-wave illumination microscopy

CONFERENCES IN JAPAN

Japan Society of Mechanical Engineers (JSME) Tohoku *September 2018*
First Principle Calculation on the Electrical Conductivity of Dumbbell-shape Graphene Nano-Ribbon.

Japan Society of Mechanical Engineers Computational Mechanics Division (CMD) *September 2019*
Effect of Strain on the Gas Adsorption of Graphene: A First Principle Study

The Japan Society for Precision Engineering (JSPE) *September 2020*
The FDTD Analysis of Near-field Response for Microgroove Structure with Standing Wave Illumination

The Japan Society for Precision Engineering (JSPE) *March 2021*
The FDTD Analysis of Near-field Response for Microgroove Structure with Standing Wave Illumination (2nd)
-The Relationship of Microgroove Depth and Near-field Phase Response

Optics & Photonics Japan (OPJ) *September 2020*
Optical FDTD Analysis of Surface Microstructure for Coherent Structured Illumination Microscopy

INTERNATIONAL CONFERENCES

Manufacturing Science and Engineering Conference (MSEC) *2021*
The FDTD Analysis of near-field response for microgroove structure with standing-wave illumination for the realization of coherent structured illumination microscopy (Accepted)

OPTICS & PHOTONICS International Congress (OPIC) *April 2021*
The FDTD Analysis for Diffraction Limited Microgroove Structure with standing-wave illumination for the realization of coherent structured illumination microscopy

TEAM WORKS

Team-based Research *Fall semester 2016*
- We proposed a line navigation robot and realized this idea using Robolab. I participated in the assembling and programming.

Professional development Consortium for Computational Materials Scientists (PCoMS) *September 2018*
- In this seminar, the topic "Computer-based DFT (Density functional theory) simulation for corrosion resistance of aluminum" was proposed by our team. I did the final presentation while team members (an assistant professor and a doctoral student) combined their ideas.

PART-TIME JOBS

Convenient store (Ministop Co., Ltd.) staff *September 2017 - October 2018*
- Be promoted from C level to A level staff in 3 months.

Freshman tutor *October 2017 - August 2018*
- Support a new international student from Singapore in his study and daily life.

MEKO Education Group *March 2020 -*
- Application Tutor

Internship

Mazda Motor Corporation *September 2019*

- R&D department, Hiroshima, learning the jointing technology development of different metals

SKILLS & INTERESTS

- Technical Microsoft Office, C Language, Python, Matlab, Solid works (Design software), Blender.
- Language Native Chinese, Fluent in English (TOEFL 98 / GRE 324) and Japanese (JLPT N1 level).
- Interests Basketball, Taichi (Martial Arts), Badminton, Guitar

Personal Achievements & Honors

- Graduation GPA: 2.7/3
- Scholarship from Sumitomo Electric Industries Social Contribution Foundation
- Finish undergraduate graduation courses in the 6th semester (normally 8th semester), and start taking graduate school lectures.
- Undergraduation GPA: 3.34/4 Core courses: Obtain AA (GPA=4) in lectures below:
  Heat Transfer (I,II)，Control Engineering (I,II), Quantum Mechanics, Computer seminar.
- Tohoku University Honor President Fellowship.
- The Monbukagakusho Honors Scholarship (JASSO).
- Membership of The Japan Society of Mechanical Engineers.
- Enrolled in "elite training program" a study tour in Zhangye High school, Gansu, China.
- Participated in voluntary support education in Xiji, Ningxia, China.