Dawei Liu
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EDUCATION

The University of Nottingham Ningbo China, *Ningbo, China* **Sept. 2015-Present**

- Major in Mechanical Engineering, Overall GPA: **3.818/4.0**
- Bachelor of Engineering expected in June 2019
- **Honors:** Dean's Scholarship (10%, 2016-2017), Head's scholarship (20%, 2015-2016)

SELECTED PROJECTS & INTERNSHP

Final year project: Propose an Inerter-based Vibration Isolation Structure for Vehicle Suppression Engineering System **Sept. 2018-Present**

Supervised by Dr. Jian Yang (Associate Professor) *Ningbo, China*

- Analyze steady-state response of the conventional vibration structures, explore into the difference of steady-state response between conventional and inerter-based vibration structure
- Calculate the results for each system with Matlab, planning to study the force transmissibility and vibration power flow with the same method that is mentioned above

Research on Human-Machine Interaction of Autonomous Vehicle **June 2018-Aug. 2018**

Supervised by Dr. Xu Sun (Associate Professor) *Ningbo, China*

- Designed a man-machine interaction system in cooperation with 9 members, components of the man-machine interface including navigation, weather, temperature and etc.
- Simulated autonomous-driving situations to collect data about testees' reaction time in an emergency shutdown, used Java, OpenDs and Sublime to simulate road conditions
- Conducted experiments to test effect of different emergency reminders such as sound, picture and the combination of sound and picture, studied face orientation of drivers, recorded time used to change from the autonomous-driving mode into the manual-driving mode
- The research found that a shorter reaction time could increase the safety of autonomous-driving

Design and Manufacture a Friction Clutch **Oct. 2017-May 2018**

- Tested and analyzed performance of materials, designed and built models for components, software used including Creo3.0 and CES, tools used including grinder, miller, rig and etc.
- Improved precision of the lathe to work out better components and improve the gas-tightness
- Won the 3rd place among 10 teams, ended the project with a co-jointly-composed report

Design an Adjustable Gearbox **Mar. 2017-May 2017**

- Studied the models on the website of SKF to seek for design inspiration
- Built models with Creo3.0, selected materials for mechanical components with CES
- This individual project achieved 83 points (ranking 3/25)

Ningbo Institute of Industrial Technology, *Research Intern, Ningbo, China* **June 2017-Aug. 2017**

- Assisted in the research related to the permanent-magnet motor
- Participated in experiments to test the mechanical characteristics of the Nd2Fe14B

EXTRACURRICULAR

FUMA Volunteer Travel in Sri Lanka, *Volunteer Teacher, Kandy, Sri Lanka* **July 2016**

- Taught English and Mathematics to 7 pre-school students
- Participated in home-visits, provided homework instructions after school

UNNC English Club, *Deputy Minister, Ningbo, China* **Oct. 2016-May 2017**

- Drafted essays to promote English lectures and coming events
- Took charge of recruitment affairs, schemed and organized activities to enhance the rally power

SKILLS & HOBBIES

***Skills*:** Familiar with Matlab, Beginner of Java and GameMaker,

***Software*:** Familiar with Creo3.0, and Cambridge Engineering Selector (CES), Beginner of SolidWorks

Northwestern

- Machine Dynamics **2019 Fall**
- Eng Opt Prod Des Man
- Robotic Manipulation

- Intro to Mechatronics **2020 Winter**
- Micromanufacturing
- Industrial Energy Management

- Advanced Mechatronics **2020 Spring**
- Numerical Methods/Nonlinear Sy
- Machine Learning: FAA

- System Theory **2020 Fall**
- Human Computer Interaction
- Project: Robotic Arm Programming