LUOHAORAN WANG

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EDUCATION

University of Washington **Seattle, US**

- Master of Materials&Science Engineering Sept. 2022- June 2024

University of Nottingham, Ningbo Campus **Zhejiang, China**

- BEng (Hons) Mechanical Engineering Sept. 2018- June 2022

- Relevant Coursework: Mechanics of solids; Materials in Design; Design, Manufacture and Project; Dynamics and Control; Engineering Management; Fiber Reinforce Composites Engineering

ACADEMIC RESEARCH

- **Simulation of flexible sensor with wing structure** June 2022- Oct. 2022
  - Modelled a flexible sensor with wing structure in ABAQUS
  - Investigated and corrected the simulation for mechanical properties test by ABAQUS
  - Recorded the simulation data and analyzed the simulation results
- **Effects of Flame retardant mat on carbon fiber composites** Sept 2021- June. 2022
  - Designed the experimental formula the carbon fiber composites with recycled carbon fiber FR mats
  - Manufactured the FR mats and the hybrid carbon fiber laminates by vacuum infusion process
  - Investigated the fire properties and mechanical properties of carbon fiber laminates
- **Sustainable Carbon Fiber Mixed with Natural Fiber** June 2021- Aug. 2021
  - Added natural fiber to the recycled carbon fiber laminates to make the hybrid composite
  - Used Origin and MATLAB to investigate and verify experiment to support feasibility
  - Conducted experiments such as vacuum infusion and hot press molding
- **Marine Gearbox** Feb. 2021- June 2021
  - Used Solid Works to design a gearbox with good waterproof performance but low weight
  - Figured out the calculations of gears, bearings and shafts for each suitable material
  - Designed and counted the corresponding processing process and price list for practical application
- **Improvement Recycled Carbon Fiber Conductivity** July 2020- Jan. 2021
  - Improved the recycled carbon fiber conductivity via electrochemical deposition of silver nanoparticle
  - Analyzed the properties of modified fibers, such as single fiber strength and conductivity
  - Checked the conductivity of the carbon fiber coated with nanoparticle through the multimeter
- **Recycled Carbon Fiber for High-Value Application** June 2020- July 2020
  - Applied the recycled carbon fiber to high value-RCF coated with fire retardant agents
  - Used Origin to analyze the experiment data, such as limited oxygen index and tensile test
  - Manufactured the thermoplastic composite panel to improve the composite fire resistance properties

- **Buggy** Feb. 2020- May 2020
  - Equipped the buggy with Raspberry PI, controlled the buggy through programming
  - Used C and MATLAB to test and chose the best logic codes
  - Imported the codes to make the buggy move and recognize obstacles automatically

PUBLICATION

Xu, Jin; Feng, Hanfang; Cao, Jinwei; Zhang, Binran; Bao, Wandi; Wang, Luohaoran; Yin, Yimin; Li, Huayang; Zhu, Guang. "A Wing-Structured Sensor with Multiple Mechanical Stimuli Differentiation Capabilities toward Multifunctional Applications". Nano Energy, 2023.

INTERNSHIP EXPERIENCE

- **Bureau of Industrial Information Technology** Jan. 2020- Feb. 2020
  - Analyzed the technology and manufacture data to evaluate the tendency of technological development
  - Participated in the industrial park field investigation and attended the international cooperation projects

ACTIVITIES & SKILLS

- **AIESEC Local Volunteer** June 2019- July 2019
  - Planed and organized global village activities and activities publicity in a community
- **Guide of Campus Open Day** Apr. 2019- May 2019
  - Lead parents and students to visit the campus, actively helped them to solve doubts
- **Software Skills:** C Programming, Solid Works, MATLAB, Origin, 3DS MAX, ABAQUS, Psychology, Adobe Photoshop, Adobe Premiere, Microsoft Office
- **Technical Skills:** Vacuum infusion process, Hot pressing, Hands layup, Digital image correlation, Drop tower impact test

HONOR

Outstanding Participant in FoSE Elite Project; the First Prize in Online Yangming Cultural Study and Knowledge Contest; Communication and Marketing Campaign Volunteer; AIESEC Volunteer