QIHAN WANG

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EDUCATION

Rensselaer Polytechnic Institute Sep. 2019 - May 2023

B.S. in Aeronautical Engineering & B.S. in Mechanical Engineering Cumulative GPA: 3.4

Carnegie Mellon University

M.S. in Mechanical Engineering-Research Aug. 2023 – Present

INTERNSHIP & WORKING EXPERIENCE

Research & development engineer assistant

Geek Bridge International Co., Ltd, Shanghai, China Jul. 2021-Aug. 2021

- Visited every department of the factory, learned about their individual departmental functions and collaboration, as well as company culture
- Learned the process of designing and developing a tethered UAV, including assisting engineers design the base piece and test flying new products
- Used CAD software to develop a RC flywing inspired by *Nausicaa's Valley of the Wind*
- Simulated and optimized the performance and stability of the flywing by using XFLR5

Research & development engineer assistant

Cheery Garden Tools Co., LTD, Ningbo, Zhejiang, China Dec. 2020-Jan. 2021

- Helped design and model the battery cover of lawn mower through 3D CAD
- Constructed the 3D Model of the inner structure and outer shell of a wooden chainsaw
- Analyzed and balanced the mass of the knife blade for lawn mower
- Assembled and tested new sample products, including chainsaw, blower and mower.
- Visited the factory and learned the process of developing and building new products

Research & development engineer assistant

Cheery Garden Tools Co., LTD, Ningbo, Zhejiang, China Jun. 2020-Aug. 2020

- Reviewed manufacturing and design processes for various products at the factory
- Programmed and operated a computer-aided machine to manufacture cutting blades
- Acquired the laser cutting or stamping techniques to process raw steel (coils) into blade prototypes

RESEARCH EXPERIENCE

Undergraduate Student Research Intern

Undergraduate Research Program instructed by Amir H. Hirsa Jun. 2022- May. 2023

Rensselaer Polytechnic Institute

- Use 3D modeling to design an OID (oscillatory interfacial dilator) device that can change the interfacial area. The goal of this flow system is to simulate the interface in alveoli sacks. The data will be used to extract the apparent surface dilatational viscosity.
- Utilize CNC machine and other tools to build and optimize the OID system to ensure successful operation
- Attend weekly group meetings and present research updates

Flap designer & manufacturer

RPI Design Build Fly (DBF) Sept. 2019-Oct. 2021

- Design and model different types of flaps for the plane, mainly hinge flap and Fairey-Youngman flap
- Manufacture and assemble multiple parts of the sample plane and test fly new prototypes
- Help chief engineer to optimize the plane to meet the criteria for the annual competition held by AIAA (American institutes of Aeronautics and Astronautics)
- Selected to represent RPI at Design Build Fly competition in Kansas held by AIAA (04/2021)

STUDENT SKILLS

Microsoft Word, PowerPoint, Excel, Siemens UGNX, HyperWorks CFD, Python, MATLAB, Arduino