Zhijing(Rey) Hu

✉ zhu31@jhu.edu   ⌨ ooReynoldsHuoo   ▯ 732-322-1531   ⌂ Baltimore, MD

EDUCATION

Johns Hopkins University   **Baltimore, MD, US**
Master of Science in Mechanical Engineering   *Aug 2021 - May 2023*
- Focus on Robotics and Auto-driving track fields

Rutgers University-New Brunswick   **New Brunswick, NJ, US**
Bachelor of Science in Mechanical Engineering with Honors   *Aug 2017 - May 2021*
- Honor Student in Dean's List | Best Overall ME Senior Design of Class 2021

TECHNICAL SKILLS

Engineering: SolidWorks, MATLAB, ANSYS, Auto CAD, LabView, Altair
Programming: Java, Python, HTML5, Arduino Workshop, C Sharp, CSS3
Certifications: Machine Learning with Python, Robotics: Mobility, Introduction to Self-Driving Cars, Introduction to HTML5, Introduction to CSS3

INDUSTRIAL EXPERIENCES

Hangzhou KEQIANG Information Technology Co., ltd   **Hangzhou, China**
Software Engineer, Online Intern   *June 2021 - Aug 2021*
- Participated in Injection Molding Machine using High-Net Control System program
- Programmed and developed own OPC server and clients by different two different coding languages - Java and C Sharp, and added them to IFMS (Intelligent digital factory management system)
- Imported production plans into manufacture system through ERP, monitored the processing parameters, checked the defective goods feedback and followed PDCA to complete the maintenance
- Set up Machine-To-Machine communication and improved back-end services for alarm system, mobile APP and email

VALEO   **Shanghai, China**
Mechanical Engineer, Online Intern   *June 2020 - Nov 2020*
- Participated in two main training programs: Wiper and Washer System of motor vehicles; Clean Project Management(CPM)
- Mastered two different front linkages of Parallel system and Overlap system as well as key characteristics of the linkage of wiping arm and blade, and investigated the performance of materials applications and assembly structures
- Improved the project decision making abilities, involving Critical (Supplier) Parts selection, NPP SoCo decision making process, Purchase Order – Workflow simplification and PM empowerment, etc
- Calculated and simulated the attack angle of wiper system, learned the wipe patterns and system components in industrial production line, and proposed the safety plans of the system

LABORATORY EXPERIENCE

Changying Xinzhi Technology Co.,Ltd   **Zhejiang, China**
Research Assistant, Online Remote   *May 2020 - Dec 2020*
- Part-timely participated in the IUR Program (Industry-University-Research) and responsible for designing project — Automatic Self-assembly Equipment of High Precision Gas Mask Filter Units
- Completed the preliminary design scheme and part of the design tests, such as the automatic weighing test, double turntable station auto-switching test, etc
- Designed the intelligent production lines and non-standard automation equipment, involving VDVAS, detection system design, etc
- Improved the equipment reliability optimization design work, evaluated and examined chemical materials for the core of mask

Key Laboratory of 3D Printing Process and Equipment of Zhejiang Province   **Zhejiang, China**
Lab Assistant   *May 2019 - Aug 2019*
- Participated in the main project in Zhejiang University — Tripod Robotic Arm on Inclined Guide Rails
- Investigated the working principles of 3D Printing and applications of conventional printing materials, then designed the grabbing hand with SolidWorks
- Calculated and testified the spatial linkages and trigonometric functions of the arms, collected over 2,000 sets of 3D coordinates to adjust and optimize the motion path of robot, improving the spatial motion accuracy
- Installed and tested the circuit board and MKS Base for Delta 3D printer and CNC control, and then programmed, tested, and debugged simulation codes on Arduino to realize grabbing motions

MAIN PROJECTS

- Senior Design: Low Cost Ventilator for COVID-19 Patients
- Drawing Tarot Cards with Python
- Mechanism Linkage Design: 4 Legs Walking Robot