Andy Ding

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Education

Purdue University — **West Lafayette, Indiana**
B.S.E in Mechanical Engineering — Expected Graduation: **May 2023**
Minor in Electrical and Computer Engineering
Honors: Dean's List — GPA: **3.77/4.0**

Experience

Honeybee Robotics — **Longmont, CO**
Test Engineering Intern — May 2022 – August 2022

- Worked on driver software for a high voltage universal motor driver to integrate with existing Honeybee test systems and allow for testing of larger components
- Redesigned a reed switch tester to improve component testing accuracy and reduced reed switch failure rates from 50% to 10% with no impact on final assembly failure rates
- Characterized a harmonic drive to help the design team set limitations for a high precision satellite actuator and found that components could exceed initial customer expectations

Purdue RAAD Lab — **West Lafayette, IN**
Undergraduate Researcher — January 2021 – May 2022

- Developed a CNC heat sealing machine to enable the lab to construct complicated geometries and further different research projects

Purdue AAMP-EM — **West Lafayette, IN**
Undergraduate Researcher — January 2021 – December 2021

- Worked in a team to develop a closed loop 3D printer that utilizes depth sensor information as part of Purdue University's AAMP-EM research program with the United States Army
- Analyzed per layer data of a 3D print from a fringe projection system using MATLAB and C++ to correct defects during the printing process and reduce wasted resources from failed prints
- Updated project sponsors through regular presentations as well as documenting overall progress through technical reports and research posters

Boiler Robotics Team — **West Lafayette, IN**
Robot Arm Project Lead — January 2020 – May 2022

- Directed the design, manufacturing, and testing of a 6 degree of freedom robot arm for the University Rover Challenge
- Researched and implemented Robot Operating System and MoveIt packages for teleoperated control and simulation of the arm
- Established semester goals and timelines while delegating tasks among new recruits
- Performed analysis to determine necessary design choices and assisted in detailed Solidworks modeling for manufacturing

Purdue EPICS MOBI Team — **West Lafayette, IN**
Design Lead — August 2019 – May 2020

- Led development and manufacturing of improved hospital equipment for sonography
- Completed and delivered an improved exam stand for greater patient and technologist comfort using feedback provided by local hospitals

Skills

CNC operation, 3D printing, CAD/CAM, Python, MATLAB, Arduino, Soldering/Crimping