Thomas Wenhu Xu

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EDUCATION

Carnegie Mellon University (CMU) - School of Computer Science *Pittsburgh, PA*
- Master of Science in Robotic Systems Development *May 2022*
- GPA: 4.0/4.0

The University of California, San Diego (UCSD) *La Jolla, CA*
- Bachelor of Science in Mechanical Engineering with a Specialization in Controls and Robotics *June 2020*
- GPA: 3.87/4.00, Cum Laude

WORK EXPERIENCE

UCSD Bioinspired Robotics and Design Lab *La Jolla, CA*
Research Assistant *Apr. 2019 - Present*
- Fabricated prototypes of bioinspired gripping pads and fluidic elastomer actuators
- Conducted physical material testing and tested performance in simulation

ASML *San Diego, CA*
System Integration Intern *Jun. - Sep. 2019*
- Generated data analytics dashboards to visualize and analyze machine efficiency and performance, currently used by company executives in daily team meetings
- Developed semi-autonomous notification tool to streamline performance monitoring and documentation process

UCSD Jacobs School of Engineering *La Jolla, CA*
Engineering Tutor *Sep. - Dec. 2018*
- Hosted weekly sessions of an undergraduate introductory engineering/design class
- Clarified key theoretical concepts, taught CAD/CAM skills, oversaw student design studio
- Facilitated and graded assignments (engineering drawings, formal reports, etc.)

Solar Turbines *San Diego, CA*
Packaging and Systems Intern *Jul. - Sep. 2018*
- Developed VBA/Excel tool to autonomously identify optimal package lift kit arrangements
- Presented tool development and progress to senior engineers, company executives
- Carried out finite element analysis of product components using ANSYS Mechanical
- Achieved savings of ~$50k annually (through material costs, engineering hours)

PROJECTS

Predictive Avoidance for Mobile Robots *OMRON, CMU | Aug. 2020 - Present*
- Developed multi-algorithm framework to optimize collision avoidance for mobile robots
- Framework to be implemented and validated in simulation (ROS, Gazebo)

SKILLS

CAD Software: SolidWorks, SOFA, AutoDesk Inventor, Gmsh, AutoCAD, ANSYS Mechanical
Programming Languages: MATLAB, Python, VBA, HTML, XML, C++
Other Software: Git, ROS, CMake, Adobe Photoshop, Illustrator, TIBCO Spotfire
Bilingual: Chinese, English