

XIAOZHOU ZHANG

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EDUCATION

- **University of Pennsylvania** Philadelphia, PA
M.S in Mechanical Engineering and Applied Mechanics; GPA: 4.00/4.00
Expected: Spring 2020
- **Mao Yisheng Honors College, Southwest Jiaotong University** Chengdu, China
B.E in Mechanical Engineering; GPA: 3.60/4.00; Ranking: 1/21(Honors Class)
Sep 2014 – Jun 2018

EXPERIENCE

- **GRASP Lab** Philadelphia, PA
Research Assistant
 - Assisted design arm module of HRI platform Quori
 - Implemented D* algorithm for base's navigation in dynamical environments
 - Set arm test program to detect defects
- **Hefei Huaqi Innovation Technology Co.Ltd** Hefei, China
Co-founder/Chief Technology Officer
 - Initiate and supervise product research and development division
 - Accessed Windows 10 tablet to virtual machines hosted on self-assembled server with GPUs.
 - Configured Ubuntu hosts for USB and PCI passthrough
- **Chengdu Shimmer Duckweed Technology Co.Ltd** Chengdu, China
Co-founder/Chief Technology Officer
 - Developed product Duckweed for treating algae bloom and monitoring water quality
 - Designed and built hardware structures, sensing circuit module with temperature and PH sensors
 - Programmed STC microcontroller and data transmission module with SIM900A GPRS DTU
 - Obtained **Patent for Inventions #201710328765.1** and **Patent for Utility Models #201720518974.8**

PROJECTS

- **Vision Guided Screws Loosening System Based on a Six-axis Manipulator** Chengdu, China
Undergraduate Final Year Project
 - Designed and programmed image acquisition system with STM microcontroller and Baumer video camera
 - Implemented camera calibration with MATLAB, image processing to locate screws with OpenCV
 - Solved inverse kinematics and programmed SRE-400 manipulator in PLC structured text
 - Designed PC front end using Qt and VS
- **Research of Rolling Bearing Abrasion Diagnosis Method** Chengdu, China
Undergraduate Research Training Project
 - Collected vibration signals of damaged bearings from self-designed testing platform with acceleration sensor
 - Implemented data normalization, smoothing processing and Fourier analysis with MATLAB
 - Trained and implemented neural network model to diagnose the type of damage with MATLAB
 - Built database for future reference

SKILLS

- **Programming:** Proficient with C, MATLAB, Python; Experienced in JAVA, C++
- **Engineering software & prototyping:** Proficient with AutoCAD, SolidWorks; Experienced in 3D Printing, Lasercutting, CNC milling and turning
- **Multimedia tools:** Proficient with Adobe PS, Adobe Illustrator; Experienced in Adobe AE, LUMION