XIAOZHOU ZHANG

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Education

- **University of Pennsylvania** — Philadelphia, PA
  M.S in Robotics; 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 — *Fall 2018 - present*
  - Assisted design arm module of HRI platform Quori
  - Implemented D* algorithom 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 — *Dec 2018 - present*
  - 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 — *May 2017 - Aug 2018*
  - 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 — *Spring 2018*
  - 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 — *Spring 2015 - Spring 2016*
  - 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