# 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*

## Stratup Company Experience

- **Hefei Huaqi Innovation Technology Co.Ltd** — Hefei, China
  *Co-founder/Chief Technology Officer* — *Dec 2018 - present*
  - Initiate and supervise product research and development division
  - Developed product Game Tunnel, an APP accessing 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

- **Low-Cost Service Robot Platform** — Philadelphia, PA
  *GRASP Lab Project* — *Fall 2018*
  - Helped assemble Quori Base
  - Implemented A* Replanner and D* algorithm for trajectory planning in dynamical maps with MATLAB
  - Designed graphic interfaces for demonstration with MATLAB
  - Tested and analyzed the performances of both algorithms
- **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