XIAOZHOU ZHANG

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Education

- **University of Pennsylvania** — Philadelphia, PA
  M.S in Robotics; GPA: 4.00/4.00 — *Expected: Spring 2021*
  M.S in Computer and Information Science; GPA: 4.00/4.00 — *Expected: Spring 2021*
- **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 SRE4-600 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 ROS, 3D Printing, Lasercutting, CNC milling and turning
- **Multimedia tools**: Proficient with Adobe PS, Adobe Illustrator; Experienced in Adobe AE, LUMION

张小舟

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教育背景

- **宾夕法尼亚大学** 宾州 费城
  机器人硕士；平均绩点: 4.00/4.00 2021年春季毕业
  计算机硕士；平均绩点: 4.00/4.00 2021年春季毕业

- **西南交通大学 茅以升荣誉学院** 中国 成都
  机械工程学士；特优荣誉毕业生；平均绩点: 3.60/4.00；排名: 1/21 2014年9月 - 2018年6月

项目经历

- **Quori人形机器人** 宾州 费城
  *GRASP*实验室研究助理 2018年秋季 - 今
  - 协助Quori人机交互平台的手臂设计
  - 应用D*算法实现底盘在动态环境中的导航
  - 设计测试程序完成手臂测试任务

- **四轴飞行器的动力学建模、视觉、控制与规划** 宾州 费城
  课程项目 2019年春季
  - 完成CrazyFile四轴飞行器的动力学建模
  - 测试调整非线性几何控制器的PD参数
  - 完成机载相机的姿态估计、IMU信号采集，使用扩展卡尔曼滤波器估计速度与坐标
  - 应用A*算法实现三维环境中的导航

- **Huaqi云游戏平台** 中国 合肥
  个人项目 2018年12月 - 2019年1月
  - 使用Win10平板电脑访问个人服务器上的虚拟机
  - 在Linux环境下配置宿主机，实现USB与PCI透传

- **基于六轴机械手的紧固螺钉拧松系统** 中国 成都
  本科毕业设计项目 2018年春季
  - 使用单片机以及Baumer相机设计编程图像采集系统
  - 使用MATLAB进行相机标定，使用OpenCV进行图像处理完成螺钉定位
  - 完成运动学逆解，为SRE4-600六轴机械手进行PLC编程
  - 使用C++与Qt设计交互前端

- **小型水质监测与水华治理设备** 中国 成都
  成都微光浮萍科技有限公司联合创始人 2017年5月 - 2018年8月
  - 负责产品结构、传感电路的设计
  - 负责单片机以及数据传输模块的编程
  - 取得**发明专利#201710328765.1**以及**实用新型专利#201720518974.8**

- **关于滚动轴承磨损信号诊断的研究** 中国 成都
  本科生科研训练计划 2015年春季 - 2016年秋季
  - 设计搭建测试平台，建立数据库收集受损轴承的振动信号
  - 使用MATLAB进行傅里叶分析、数据标准化以及平滑处理
  - 使用MATLAB训练以振动信号为输入、轴承磨损类别为输出的神经网络

相关技能

- **程序语言**: 熟悉C\MATLAB\Python语言；了解JAVA\C++语言
- **工程软件以及成型方法**: 熟悉AutoCAD\Solidworks\ROS系统\3D打印\激光切割\车铣钻床
- **多媒体工具**: 熟悉Adobe PS\Adobe Illustrator；了解Adobe AE\LUMION