

Yang ZHOU

393 Middle Huaxia Road, Pudong, Shanghai, China 201210
+86 138-0584-9734 or +1 518-912-9285 | zhouyang@shanghaitech.edu.cn |
<https://www.linkedin.com/in/yangzho/> | <https://zhou-yang.org/>

EDUCATION

ShanghaiTech University	Shanghai, China
B.S. in Computer Science	Sep. 2015 – Jul. 2019 (Expected)
<ul style="list-style-type: none">• GPA: 3.71/4.0 Rank: 7%• Core course:➤ Computer Vision➤ Robotics (graduate)➤ Simultaneous Localization and Mapping (graduate)➤ Deep Learning (graduate)➤ Machine Learning (graduate)➤ Mechatronics (graduate)	
The University of Chicago	Chicago, USA
Summer Session	Aug. 2016
<ul style="list-style-type: none">• Course: Statistical Models and Methods	

PUBLICATION

Yang Zhou, “Extrinsic Calibration Algorithm between a Stereo Visual System and a 3D LiDAR,” The Carnegie Mellon University Robotics Institute Summer Scholars Working Papers Journal, 2018

RESEARCH EXPERIENCE

Research Interest: **SLAM, Robotics, Computer Vision, Deep Learning**

Robot Perception Lab , Carnegie Mellon University	Pittsburgh, USA
<i>Undergraduate Research Intern</i> , supervised by Prof. <i>Michael Kaess</i>	Jun. 2018 – Dec. 2018
<ul style="list-style-type: none">• Proposed a novel extrinsic calibration algorithm between a stereo visual system and a 3D LiDAR.• Developed an efficient extrinsic calibration toolbox in C++.• Presented a poster at Robotics Institute Summer Scholars research showcase.• Participated in the research of 3D LiDAR intrinsic calibration. (in progress)	

Mobile Perception Lab , ShanghaiTech University	Shanghai, China
<i>Bachelor Thesis</i> , advised by Prof. <i>Laurent Kneip</i> , co-advised by Prof. <i>Michael Kaess</i>	Oct. 2018 – Present
<ul style="list-style-type: none">• Proposed a novel pipeline of Stereo Event-based Visual Inertial Odometry. (in progress)	

Living Machine Laboratory , ShanghaiTech University	Shanghai, China
<i>Undergraduate Research Assistant</i> , supervised by Prof. <i>Andre Rosendo</i>	Mar. 2018 – May. 2018
<ul style="list-style-type: none">• Proposed a novel framework to detect the malfunction of manipulator using a monocular camera.• Implemented tools to control JACO 2 Robotic Arm in ROS with inverse kinematics.	

The Perception, Learning and UnderStanding Group , ShanghaiTech University	Shanghai, China
<i>Undergraduate Research Assistant</i> , supervised by Prof. <i>Xuming He</i>	Feb. 2017 – Mar. 2018
<ul style="list-style-type: none">• Participated in the research of semantic segmentation.• Proposed and realized a 6-DoF object pose estimation algorithm using deep learning in PyTorch.	

Mobile Autonomous Robotic Systems Lab , ShanghaiTech University	Shanghai, China
<i>Summer Research Intern</i> , supervised by Prof. <i>Sören Schwertfeger</i>	Jun. 2016 – Aug. 2016
<ul style="list-style-type: none">• Developed a flight control module using the localization from the optitrack to hover the drone.	

PROJECT & LEADERSHIP EXPERIENCE

ShanghaiTech RoboMaster Team

Shanghai, China

Captain, Founder

Oct. 2017 – Present

- Led cross functional project team of 35 to build 6 robots with different functions.
- Designed the framework of perception system, planning system, and decision-making system.
- Developed a perception system for object detection and pose estimation using deep learning.

ShanghaiTech Undergraduate RoboCup Rescue Team

Shanghai, China

Leader of Computer Vision group, Co-founder

Feb. 2017 – Apr. 2018

- Developed a SLAM system using a 2D LiDAR and an RGB-D sensor.
- Developed a QR code and motion detection system.

WORKING EXPERIENCE

Tencent United Security Laboratory, Tencent Inc.

Shanghai, China

Security Researcher

Aug. 2017 – Dec. 2017

- Participated in security research on perception system of the autonomous driving car.
- Proposed adversarial attack method to evaluate the robustness of the visual perception system.

TEACHING EXPERIENCE

CS110 Computer Architecture, ShanghaiTech University

Shanghai, China

Teaching Assistant

Mar. 2018 – Jun. 2018

- Held Office Hour and Discussion for about 110 sophomore students in English.
- Designed two assignments and provided problems for three exams.

SI100 Introduction to Information Science and Technology, ShanghaiTech University

Shanghai, China

Teaching Assistant

Mar. 2017 – Jun. 2017

- Held Office Hour and Discussion for about 380 freshmen students in English.

CS100 Programming, ShanghaiTech University

Shanghai, China

Teaching Assistant

Sep. 2016 – Feb. 2017

- Held Office Hour and Discussion for about 120 freshmen students in English.

HONOR & AWARDS

- Third Prize, RoboMaster 2018 Robotics Competition, Regional May. 2018
- Champion, Manipulator Challenge at RoboCup Rescue 2018 Competition, China Apr. 2018
- Third Prize, RoboCup Rescue 2018 Competition, China Apr. 2018
- Academic Excellence Scholarship, ShanghaiTech, Twice (Top 15%) Dec. 2017 & Dec. 2016
- Outstanding Student, ShanghaiTech, Twice (**Top 5%**) Dec. 2017 & Dec. 2016
- Honorable Mention of 2017 Mathematical Contest in Modeling Apr. 2017

SKILLS

Programming: C/C++, Python, MATLAB, Rust

Platform: ROS, Pytorch, Tensorflow, OpenCV, PCL, SolidWorks