

Yoonyoung Cho

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EDUCATION

OLIN COLLEGE OF ENGINEERING

Needham, MA

Bachelor of Science, Engineering:Robotics, May 2019

- Recipient of 4 year 50% Olin Merit Scholarship

UDACITY ROBOTICS SOFTWARE NANODEGREE

Mountain View, CA

Industrial curriculum in Robotics fundamentals and algorithms

- Online modern robotics course on controls/localization/navigation/perception/deep learning

WORK EXPERIENCE

Optimus Ride | <https://www.optimusride.com/>

Boston, MA

Perception Engineer

June 2019 - Present

- LIDAR-based obstacle detection, segmentation and tracking algorithms in an autonomous driving system

Powered Mobility Project | <https://github.com/olinrobotics/Powered-Mobility>

Needham, MA

Project Lead

Summer 2018

- Research on ROS-based shared autonomy suite development with powered wheelchairs
- Integration of autonomous perception, localization and navigation suites on commercial mobile platforms

Piaggio Fast Forward | <https://www.piaggiofastforward.com/>

Boston, MA

Robotics Software Intern

May 2017 – Dec 2017

- Deep learning based development/deployment of object detection and tracking system in tensorflow
- High speed visual object detection and robust object tracking at 60+ FPS

Olin College | <https://github.com/Olin-FunRobo>

Needham, MA

Teaching Assistant

Sep 2016 – Dec 2016

- Rebuilding the software curriculum of the ENGR 3390: Fundamentals of Robotics with ROS

Olin Robotics Lab | <https://github.com/BluetoothFishTagging>

Needham, MA

Researcher

Summer 2016

- Crowdsourcing RFID-Enabled Fish tracking technology, in partnership with the Large Pelagics Lab
- Paper submission accepted to IEEE Oceans'16 conference | <https://ieeexplore.ieee.org/document/7761023>
- Scalable mobile and web app development with sensor interfaces; Android | Node.js | MySQL | AWS

PROJECTS

Olin Interactive Robotics Lab | https://github.com/ycho0108/st_r17_ros_driver

Research Project

Sep 2016 – May 2019

- ST-R17 Robotic Arm C++ Driver compatible with general ROS hardware interface
- Stereo Vision based dynamic pick-and-place feedback control
- Visual fiducial-based robot arm parameter calibration

International Aerial Robotics Competition | <https://github.com/Olin-Aero/iarc-2017>

Club Project

Sep 2017 – May 2018

- Project lead on *perception, localization* and *simulation* stacks
- Model-based multi-target UKF state estimation
- High fidelity Gazebo simulation of IARC Mission 7

SKILLS

- Robotics | Machine-Learning | Computer Vision
- Framework: Tensorflow | PyTorch | ROS | LCM | CUDA | Android | Gazebo | Qt | WebGL
- Language: C++ | Python | C | Javascript | Java | Php
- Fabrication: Mill | Lathe | CNC Shopbot | 3D Printing | Laser Cutter | MIG Welder