JIE TANG

(226)-260-7163 ⋄ alvin.tang6@gmail.com

SKILLS

Programming Languages and Frameworks
C/C++, Matlab, Python, CUDA, STM32
Software and Tools
ROS, Gazebo, Simulink, SolidWorks, CubeMX, Keil, Git, CMake
Office Skill
MS Office, LaTeX, Ps, Premiere, Visio
Libraries
Eigen, OpenCV, PCL, g2o, ceres
Algorithm
EPnP, SVD, KF, EKF, optimizing based estimation (GD, Newton, LM), LQR, H∞

EXPERIENCE

Teaching Assistant, University of Windsor   *Jun.2017- May.2019*
- Teaching assistant in 'Control systems' and 'Industry Control'
- Organized the laboratory experiments and give tutorials.

Researching Assistant, University of Windsor   *Sep. 2016- Dec.2019*
- Control of Multi-agent system by visual sensor.
- LQG (LQR+Kalman filter)& H∞ combined control of nonlinear system.
- Lidar performance regulation using Extremum Seeking Control (ESC).

Telecommunications Engineer Intern, ZTE Corporation   *Jan. 2016- Feb.2016*
Configurtion of Passive Optical Network(PON) in Metropolitan Area Network and Access Network

EDUCATION

University of Windsor. MASc, Windsor, Canada   *Sep.2017 - Dec.2019*
Electrical Engineering (Robotic)   GPA: 3.9

North China Electric Power University. BEng, Beijing, China   *Sep.2012 - Sep.2016*
Electrical and Computer Engineering (Telecommunication)   GPA: %82.3

PROJECTS

ROS and Pixhawk based Autonomous flight control   *May. 2017- Jan.2018*
-Developed an autonomous fight control system with Nvida Jetson TX2 (high level controller) and pixhawk (low-level controller) by using MAVROS.

Multi-robot visual formation control   *March. 2018- May.2019*
-Designed a formation control system allowed robots to keep a special pattern during moving, meanwhile, all the robots are in the visible zone(inside in the camera's Field of View) of others. video at https://youtu.be/5x1tOIw7TJc. codes at https://github.com/Alvintang6/robot_formation.

Robust control of inverted pendulum   *March. 2019- May.2019*
-Designed a system to validate a new control structure which use classical LQG controller for inner loop and H∞ contorller for outer loop to improve the robustness of system — the system can resist much larger disturbance from environments. video at https://youtu.be/ZyAGczXnCfk

Lidar performance autonomously regulating system   *Aug.2019- Nov.2019*
-Developed a Extremum Seeking Control based Lidar performance regulation system which can optimize the coverage, distance and intensity for a solid state Lidar. video at https://youtu.be/zY0fK4DKVJM