HONG LU

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Site: www.lewissoft.com

Sheffield, South Yorkshire, UK

EDUCATION:

The University of Sheffield   Sheffield, UK
Master's in Robotics   2020.9 - present

Nanjing University of Aeronautics and Astronautics   Nanjing, CN
Bachelor's in computer engineering, Supervisor: Dr. Xiangping Bryce Zhai   2015.9 – 2019.6

Cornell University   Ithaca, US
Master's in Electrical and Computer Engineering   Deferred to 2021.8

WORK EXPERIENCE:

Westlake University   Hangzhou, CN
Research Assistant, Supervisor: Dr. Shiyu Zhao   2020.3 – 2020.9

Fujitsu China   Nanjing, CN
SDE Internship in Unified Diagnostic System   2018.7 – 2018.10

RESEARCH EXPERIENCE:

Multi-Agent Simulation   03/2020-09/2020
- Project containing simulations for multiple agents. Collision Avoidance and Obstacle Avoidance are implemented in this project using Velocity Obstacle approach. Physical Engine Environment is also adopted for simulation.
- Resources: [Sim4A]

Trajectory Generation Based on Sampling Algorithm   03/2019-05/2019
- Path planning project by using Rapid-exploring Random Tree and improvements are added.
- Resources: [PDF & CODE]

Duration and Energy Optimization in Speed Control of Quadrotor UAV   09/2018-12/2018
- Achieved minimum time or energy consumption in flight process, dedicated to find the tradeoff between time and energy in speed control of quadrotor UAV under different circumstances which will provides comprehensive performance for aerial vehicle in the future.

Vehicular APP for Intelligent Driving Focusing on Health Care   03/2018-08/2018
- Aimed to provide drivers with vehicular intelligence focusing on health care, allowed drivers to know their health status during daily driving by offering weight, body temperature, heartbeats measurements and averted drunk driving by alcohol detection, made the system to provide vocal suggestions in corresponding to various situations.
- Resources: [VIDEO]

PUBLICATION:

- K. Chen, **H. Lu**, X. Zhai, Trajectory Optimization Under Constrained UAV-Aided Wireless Communications with Ground Terminals, EAI AICON, 2019. (EI) [LINK]
- **H. Lu**, K. Chen, X. Zhai, B. Chen and Y. Zhao, Tradeoff Between Duration and Energy Optimization for Speed Control of Quadrotor Unmanned Aerial Vehicle, IEEE ISPCE, to appear, 2018. (EI) [LINK]

VOLUNTEER ACTIVITIES

The Organization Department of School League Committee, *Vice-president*   09/2016-07/2017

"Gal sang Flower Blooming" *Tibet* Education Assistance Group, *Volunteer Teacher*   07/2016-08/2016

HONORS & AWARDS

- **National Second Prize** in "China Software Cup" Software Design Competition **(Top 0.5%)**   08/2018
                04/2018
- Second Prize for Academic Scholarship   12/2017
- Third Prize for Excellent Student Scholarship   12/2017
- National Third Prize in National FPGA Innovation Competition   08/2017
- Second Award in Industrial Engineering Paper Reading Contest   04/2017
- Third Prize for Academic Scholarship

STANDARD TESTS

- TOEFL: 100 (L: 24, R: 29, W: 25, S: 22)   06/2018
- GRE: 321 (V: 152, Q: 169, AW: 3.0)   09/2018

COMPUTER SKILLS

- Software: Python, MATLAB/Simulink, C/C++, CAD
- Hardware: Embedded programming with ARM cortex and FPGA programming
- Data Modelling and Deep Learning