GUIQIU LIAO RESUME

Guiqiu Liao Date of birth: 28th,09,1993
Imaging, Robotics, Remote Sensing & Health Department, ICube , The University of Strasbourg
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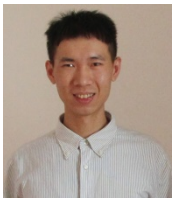

EDUCATION

The University of Strasbourg & The university of Verona October 2019- Present

- Double Ph.D. in Robotic Information Science & Computer Science
- Direction: Surgical Robotics
- Thesis: Simultaneously Tissue Identification & Mapping for Autonomous Navigation
- Thesis adviser: Prof. Michel de Mathelin and Prof. Fiorini Paolo

Shanghai Jiao Tong University(C9 university of China) September 2016- March 2019

- Master in School of Electronic, Information and Electrical Engineering, Shanghai, China
- Direction: Navigation, Guidance and Control
- Thesis: Research on Reliability Enhancement for Navigation and Control System of Rotorcraft
- Thesis adviser: Pro. Jiankang Zhao
- GPA: 3.48/4.0

Chong Qing University(985 University of China) September 2012- June 2016

- Bachelor of Engineering in School of Electronic and Optical Engineering, Chongqing, China
- Major: Measurement & control Science and Technology
- Dissertation: Autonomous Navigation and Precise Positioning for Quadcopter Helicopter
- GPA: 3.57/4.0; Integrated Ranking: 3/107

EXPERIENCE

Eastimage Equipment Co., Ltd, Shanghai April 2019 – June 2019

- Computer Vision Algorithm Engineer (Internship)
- Developed visual detection algorithm based on Region Convolutional Neural Network, improved the automatic detection performance of X-ray image.

Laboratory of Navigation & Control, Shanghai Jiao Tong University August 2016 – March 2019

- System designer and algorithm developer for UAV
- Did research on multi-sensors fusion navigation algorithm; System identification & control design for Multi-rotors aircraft; Developed Control parameters self-tuning algorithm; Developed autopilot mother board for Multi-rotors UAV and fixed-wing UAV.

Bridge Crack Detection Aerial Robot Project September 2016 - June 2018

- Researcher and developer
- Did research study on the self-location algorithm based on Ultra Wide Band (UWB) transmission technology and inertial sensors, and developed self-location and control system for aerial robot.

Drones Monitoring System Project November 2016 - June 2017

- Embedded system developer
- Developed drones monitoring system based on multi-sensors and 4G network. Designed printed circuit board for drones monitoring embedded system.

The Fifth National College Students' photoelectric Design Contest January 2016- July 2016

- Team-leader of an indoor aerial robot task team
- Did research and implementation on visual recognition and tracking algorithm; developed optical flow algorithm; Designed the Throwing Equipment for rotor craft; Researched indoor positioning and control algorithm for rotor craft; Developed rotor craft software system based on Micro-Controller Operation System (MicroC/OS).
- Ranked 3rd in the finals (261 teams from 81 institutes participated in this contest)

The 10th "Freescale" Cup National Smart Car Contest June 2014- August 2015

- Team-leader of an electromagnetic navigation smart car team
- Designed dynamic path following control algorithm and velocity control algorithm for smart car; Designed electromagnetic positioning sensors, and researched the electromagnetic positioning algorithm; Developed visual dynamic identification algorithm. Developed embedded software system for smart car.
- Ranked 4th in the finals (more than 800 teams from more than 200 institutes participated in this contest)

PUBLICATIONS

Publications

- Guiqiu Liao, Oscar Caravaca Mora, Florent Nageotte, Philippe Zanne, Benoit Rosa, Diego Dall'Alba, Paolo Fiorini, Michel de Mathelin, Michalina J. Gora, "Auto-tuning for Cascade PID Height Position Controller of Rotorcraft". (Submitted in Feb. 2020 for publication) *The Hamlyn Symposium on Medical Robotics*.
- Guiqiu Liao, Jiankang Zhao. "Auto-tuning for Cascade PID Height Position Controller of Rotorcraft". *International Conference on Electronics and Information Engineering*, New Zealand, 2019.
- Guiqiu Liao, Jiankang Zhao, Chao Cui, Haihui Long, Jianbin Zhu and Achraf Djerida. "Time Synchronization Errors Compensated 6DOF Motion Estimation System Based on Low-Cost GPS/AHRS". Submitted for publication (submitted in November 2017, revised in May 2018, revised in Dec. 2018, revised Jan.2019). *Journal of Navigation*.

Patent

- Liming Chen, Guiqiu Liao, Tianchen Wang and Fang Chen. "Opening Detection Device for Electric valve". China Patent. ZL 20152 0218610.9. Chongqing University.

SELECTED HONOR & REWARD

1. **National First Prize**, the Fifth National College Students' photoelectric Design Contest (Indoor Aerial Robot Task) August 2016
2. **Outstanding graduate**, Chong Qing University June 2016
3. **Outstanding graduation Dissertation Award**, Chong Qing University May 2016
4. **National First Prize**, the 10th "Freescale" Cup National Smart Car Contest August 2015
5. **National Encouragement Scholarship** 2015
6. **Advanced Individual in Scientific and Technological Innovation, ChongQing University** 2015
7. **Outstanding Project Award**, Student Research Training Program(SRTP) April 2014

LANGUAGE & SKILL

Technical: C++, C, Matlab, Python, Caffe, Pytorch, Labview, Robot Operating System, MicroC/OS, Linux, Altium Designer, IAR, KEIL, STM32 CubeMX, Solid Works

Algorithm: Sensor Fusion, State Estimation, Computer Vision, Machine Learning, Feedback Control, Optimization

English Proficiency: IELTS: 7.0