

OBJECTIVE Summer Intern **HOME PAGE** <http://jguoaj.github.io/about>

EDUCATION BACKGROUND

- **University of California San Diego** 2018.9 - present
Master's degree of Intelligent Systems, Robotics & Control (ISRC)
- **Hong Kong University of Science & Technology** 2014.9 – 2018.6
Bachelor's degree of Electronic & Computer Eng, Minor in Computer Science
GPA: 3.894/4.3 (top 2%) (major 4.187/4.3)

PUBLICATIONS

- Luqi Wang*, Daqian Cheng*, Fei Gao, **Jixin Guo**, Fengyu Cai, Mengxiang Lin and Shaojie Shen, ***A Collaborative Aerial-Ground Robotic System for Fast Exploration***, in International Symposium on Experimental Robotics (ISER), Buenos Aires, Nov. 2018

TECHICAL SKILLS

Languages: C, C++, Python, Matlab

- Robotics System Development on ROS
- Software & User Interface Development
- Image Classification & Captioning on TensorFlow
- Data processing with Matlab

Operating Systems: Windows, Linux

- Computer Vision (DeepLearning & Traditional)
- Testing & Continuous Integration with Python
- OpenCV & OpenAI gym Reinforcement Learning
- Embedded System design with STM32

RELATED EXPERIENCES

Research: Collaborative Aerial-Ground Robotic System for fast exploration

2017.12 - 2018.6

- Formulate autonomous exploration as field gradient optimization problem
- Implement ground vehicle Gmapping & PID control
- Implement robust state estimation, EKF & VINS-Monocular
- Deploy ROS Velodyne laser scanner & Set up local Wi-Fi time synchronization

Project: A series of Computer Vision projects

2017.10 - 2018.5

- Dense Photometric Stereo
- Deep Learning Computer Vision
- Intelligent Scissor
- Single View Modeling
- Face Detection

Research Project: Aerial Robot Control

2017.9 - 2017.12

- Minimum-Snap trajectory generation with A* algorithm
- 3D-2D pose estimation with tags detector
- EKF sensor fusion with IMU & monocular visual odometry

Internship: DJI Corp. Navigation Department, Software & System Developer

2017.6 - 2017.8

- Develop data visualization software & UI individually
- Implement continuous integration(CI) system framework with Github, Jenkins & Simulator Environment used for tracking algorithm testing, individually
- Hack GTA5 to collect training datasets for Neural Network

EXPERIENCES & HONORS

- **Participant**, Stanford Summer International Honors Program 2016.6 – 2016.8
- **External Vice President**, Model United Nation Club, HKUST 2015.3 – 2016.3
- **Organizer**, MUN Inter-University Annual Conference, HKUST 2015.11 – 2015.11
- **Team Member**, HKUST Robotics Team 2015.10 – 2015.12
- HKSAR Government Reaching Out Award 2016.9
- Robotic Design Contest, Second runner-up, HKUST 2015.12
- Dean's List, HKUST 2014 - 2018