

# Zheng GONG

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## Education

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### Shanghai Jiao Tong University (SJTU)

Shanghai, China

Ph.D. candidate Information Communication Engineering

September, 2014 – present

- Advisor: Prof. Peilin Liu
- Research Interests:
  - All source positioning and navigation
  - Unmanned aerial vehicle positioning and navigation

### Shanghai Jiao Tong University (SJTU)

Shanghai, China

B.S. Electrical and Computer Engineering

September, 2010 – 2014

UM-SJTU Joint Institute (JI)

GPA 3.13/4.00, Graduated with Honors

### University of Maryland, College Park

MD, US

A. James Clark School of Engineering, One Semester Exchange

January, 2013 – May, 2013

## Research Experience

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### Shanghai Jiao Tong University

Shanghai, China

*Institute for Sensing and Navigation*

April, 2015 – Present

*PhD Researcher*

- Explore and test innovative algorithm for all-source positioning and navigation. Establish the algorithms on quadrotors and surface robots.
- Build-up testing quadrotor platform with 9-axis IMU, barometer, ultrasound, GPS, stereo vision and optical flow sensors.

### Shanghai Jiao Tong University, UM-SJTU Joint Institute

Shanghai, China

*Laboratory for optical measurement and sensing*

May, 2013 – May, 2014

*Undergraduate Researcher*

- Designed driver for piezoelectric ceramics required by a high-accurate encoder.

### Shanghai Jiao Tong University, Institute for Autonomous System and Network Engineering

China

*Center for Intelligent Wireless Network and Cooperative Control*

September, 2011 – February, 2012

*Undergraduate Researcher*

- Constructed frequency-hopping communication in Zigbee mesh network, which contribute to a high-reliable and efficient wireless sensor network.

## Leadership Experience

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### Aalborg University, B&O Innovation Camp

Struer, Denmark

*Conceptual Design and Development of Innovative Products*

June, 2015 – July, 2015

*Team Leader*

- Participated in a 3 week workshop about design innovative concepts and products in diverse teams.
- Being a team leader of 6, designed a conceptual furniture that can project screens wherever people need it.

Prototype accomplished.

**Shanghai Jiao Tong University, UM-SJTU Joint Institute**

***Association for Science and Technology***

*President*

Shanghai, China

September, 2012 – July, 2013

- Chaired an association of 30 people with 4 groups. Talk salon and Robots workshops were hold twice a month.
- Organized the 4th and 5th Shanghai Jiao Tong University Mechanical Innovation Competition, 20 teams involved.

## **Publications**

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**Gong, Z.**, Pei, L., Zou, D., Miao, R., Liu, P., & Yu, W. (2015). “Graphical Approach for MAV Sensors Fusion,” *Proceedings of the 29th International Technical Meeting of the Satellite Division of the Institute of Navigation (ION GNSS+ 2016)*.

## **Teaching Experience**

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**Shanghai Jiao Tong University, UM-SJTU Joint Institute**

***Electromagnetics***

*Teach Assistant*

Shanghai, China

April, 2014 – July, 2014

- Instructed weekly review sessions for 10-20 students, grade 5 problem sets and 2 exams.

## **Honors and Awards**

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- The second award of the CUMCM (Contemporary Undergraduate Mathematical Contest in Modeling) (2013)
- The 1<sup>st</sup> award of The Freescale Cup Intelligent Car Racing (2012)
- The 3<sup>rd</sup> award of the Mathematical Contest in Modeling (2011)
- New shoots award of Shanghai “Jiang Yin” Cup Venture Competition (2011)
- The 4<sup>th</sup> award of Shanghai Jiao Tong University Mechanical Innovation Competition (2010)

## **Skills**

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**Computer:** Matlab, C, C++. ROS (Robot Operating System) on Linux, MAVLink & MAVROS.

**Lab:** Quadrotor calibration & testing, Pixhawk flight stack development, PCB design and soldering.