

# Junyan Su

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<https://sujunyan.github.io/>

## EDUCATION

- Sept.2015-Jun.2019** **ShanghaiTech University** **Shanghai, China**  
B.E. in Computer Science and Technology  
GPA: **3.84 /4.0** Ranking : **3/95**
- Aug.2018-May 2019** **University of California at Berkeley** **CA, USA**  
Concurrent Enrollment Student at College of Engineering

## RESEARCH INTERESTS

Control Theory  
Optimal Control  
Optimization

## PUBLICATIONS

- **J. Su**, Y. Zha, K. Wang, M.E. Villanueva, R. Paulen, B. Houska.  
Interval Superposition Arithmetic for Guaranteed Parameter Estimation  
Dynamics and Control of Process Systems, including Biosystems, 2019. [\[pdf\]](#)
- **J. Su**, Y. Jiang, A. Bitlislioglu, C.N. Jones, B. Houska.  
Distributed multi-building coordination for demand response  
In Proceedings of the 21st IFAC World Congress  
Berlin, Germany, July, 2020. (accepted) [\[pdf\]](#)
- Y. Jiang, **J. Su**, Y. Shi, B. Houska  
Distributed optimization for massive connectivity  
IEEE Wireless Communication Letters, 2020. (accepted)
- L. Gao, **J. Su**, J. Cui, X. Zeng, X. Peng, and L. Kneip  
Efficient Globally-Optimal Correspondence-Less  
Visual Odometry for Planar Ground Vehicles  
International Conference on Robotics and Automation (ICRA), IEEE, 2020. (accepted)
- **J. Su**, M. E. Villanueva, B. Houska  
A Tutorial on Koopman Operator Based Optimal Control  
59th IEEE Conference on Decision and Control, 2020 (submitted)

## HONORS & AWARDS

- 2016,2017** Scholarship for Academic Excellence, ShanghaiTech University
- Oct.13 2017** Most Innovative Robot in Rescue Robot Competition,  
IEEE International Symposium on Safety, Security and Rescue Robotics
- 2019** Outstanding Graduate of Shanghai University

## EXPERIENCE

- Jun.2018-Aug.2018** **Carnegie Mellon University** **Pittsburgh, PA, USA**  
Robotics Institute Summer Scholars Program  
Advisors: Prof. Howie Choset & Lu Li  
To design one logic-circuit-level layout with Verilog to fetch data from multiple sensors and reduce CPU intervention time. The report can be found in pp.129-132 of [\[pdf\]](#)
- Sept.2017-May 2018** **Robomasters 2018** **Nanjing, China**  
Advisor: Prof. Andre Rosendo  
[RoboMaster](#) is one international robotics competition. The competition is like multiplayer online battle arena (MOBA) video game. Each team will build their own robots that serve different functionality.

## COURSE PROJECTS

- Lego Pick & Place Assembler [\[website\]](#).
- Turtlebot with Robotic Arm Delivery [\[website\]](#).
- A Don't-Touch-Me Robot [\[website\]](#)
- Completed and passed all the points in the [\[Pintos project\]](#)
- Optimal 800MHz 6-Bit “Absolute-value Detector”  
In this project, I and my teammate implemented a CMOS level circuit “Absolute-value Detector” with Cadence Virtuoso. We achieved the minimum delay compared with other teams in the course.

## TECHNICAL SKILLS

**Programming Languages:** C/C++, Python

**Scientific Tools:** MATLAB, Mathematica, Julia, ROS

**Hardware Design:** pSoC, STM32xx, Verilog, Cadence Virtuoso

**Office Applications:** L<sup>A</sup>T<sub>E</sub>X

## TEACHING

**Feb.2017-Jun.2017** Teaching Assistant of *Introduction to Information Science and Technology*

**Sept.2017-Jan.2018** Teaching Assistant of *Electric Circuits*