

Yue Meng

9450 Gilman Drive #80164, San Diego, CA 92092, USA | mengyuethu@gmail.com

EDUCATION

- **M.S. in Electrical and Computer Engineering, GPA: 4.0/4.0** Sep. 2017 - Current
University of California San Diego, CA, USA
- **B.S. in Automation, GPA: 3.7/4.0** Aug. 2013 - Jul. 2017
Tsinghua University, Beijing, China

RESEARCH INTERESTS

- My direction focuses on semantic simultaneous localization and mapping(SLAM). I manage to leverage extracted semantic information with constraints from multi-view geometry, motion model, and structural prior from scene and instance knowledge to promote the research in robust and efficient SLAM.

RESEARCH EXPERIENCE

- **Research Assistant**, University of California, San Diego, CA, USA Jan. 2018 - Current
Advisor: Nikolay Atanasov, Electrical and Computer Engineering
 - Proposed SLAM tracking and loop closure detection strategy for semantic keypoints.
 - Designed lightweight algorithm for semantic filtering and 3D reconstruction.
 - Built SLAM front-end pipeline for semantic perception in ROS.
 - Got familiar with MSCKF and ORB-SLAM2. Ran experiments using KITTI, TUM and EuRoC.
- **Research Assistant**, Tsinghua University, Beijing, China Sep. 2015 - Jun. 2017
Advisor: Li Li, Department of Automation
 - Made a simulation platform for micro-scope transportation at non-signal intersection
 - Implemented different cooperative driving strategies in simulation software

WORK EXPERIENCE

- **Software Engineering Intern**, Google Inc, New York, NY, USA Jul. 2018 - Sep. 2018
 - Migrated ads prediction models from Sibyl to Tensorflow ML-based platform.
 - Used MapReduce for data acquisition and analysis from distributed storage service.
- **System Development Intern**, TuSimple Inc, Beijing, China Jul. 2017 - Sep. 2017
 - Implemented ROS node to capture real-time observations from cameras and LIDARs on minibus and integrated faster-rcnn algorithm for object detection.
 - Optimized the image processing procedures and increased the pipeline efficiency by 40%

PUBLICATIONS

- Feng, Q. J., Meng, Y., Shan, M., & Atanasov, N. (2019). Dense Spatial Segmentation from Sparse Semantic Information. In *2019 IEEE International Conference on Robotics and Automation (ICRA 2019)*. (Pending)
- Feng, Q. J., Meng, Y., & Atanasov, N. (2018). Dense Spatial Segmentation from Sparse Semantic Information. Spotlight in *LAIR Workshop at Robotics Science and Systems (RSS)*, 2018.
- Meng, Y., Li, L., Wang, F. Y., Li, K., & Li, Z. (2018). Analysis of Cooperative Driving Strategies for Nonsignalized Intersections. *IEEE Transactions on Vehicular Technology*, 67(4), 2900-2911.

SKILLS

- **Programming**: Python, C++, Matlab, C#
- **Tools**: Tensorflow, Pytorch, ROS, Rviz, Docker, Git, L^AT_EX, Linux
- **Courses (grades, rankings)**: Statistical Learning(A+, 5/202), Computer Vision(A+, 5/165), Sensing & Estimation in Robotics(A), Neural Network(A+, 6/212), Convex Optimization(A, 3/107)