

Yue Meng

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EDUCATION

- **M.S. in Electrical and Computer Engineering, GPA: 4.0/4.0** Sep. 2017 - Current
University of California San Diego, CA, USA
- **B.E. in Automation, GPA: 87/100** 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 with 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, ORB-SLAM2 algorithm and KITTI, TUM and EuRoC dataset.
- **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 platform.
 - Created MapReduce jobs for analysis on production data.
- **System Development Intern**, TuSimple Inc, Beijing, China Jul. 2017 - Sep. 2017
 - Designed ROS node for real-time perception from cameras and LiDARs on bus via Faster-RCNN.
 - Optimized the image processing procedures and increased the pipeline efficiency by 40%

PUBLICATIONS

- Feng, Q. J., **Meng, Y.**, Shan, M., & Atanasov, N. (2019). Localization and Mapping using Deformable Semantic Models. Submitted to *IEEE International Conference on Robotics and Automation (ICRA)*.
- 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):** Stochastic Process in Dynamic System(A+, 1/78), Sensing & Estimation in Robotics(A, 3/113), Convex Optimization(A, 4/107), Statistical Learning(A+, 5/202), Computer Vision(A+, 5/165), Neural Network(A+, 6/212)