Yue Meng

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EDUCATION

M.S. in Electrical and Computer Engineering Sep. 2017 - Current
University of California San Diego, CA, USA **GPA: 4.0/4.0**

B.E. in Department of Automation Aug. 2013 - Jul. 2017
Tsinghua University, Beijing, China **GPA: 87/100**

FIELD OF INTERESTS

Autonomous robot navigation; semantic geometry perception; 3D computer vision.

RESEARCH EXPERIENCE

Research Assistant, University of California, San Diego, CA, USA Jan. 2018 - Current
Advisor: Nikolay A. Atanasov, Electrical and Computer Engineering
- Implemented algorithms for semantic keypoint detection and smoothing
- Developed semantic perception and tracking pipeline for 3D reconstruction
- Presented at the workshop poster session on RSS 2018
- Currently working on master thesis for semantic SLAM

Research Assistant, University of California, San Diego, CA, USA Aug. 2018 - Nov. 2018
Advisor: Dinesh Bharadia, Tara Javidi, Electrical and Computer Engineering
- Proposed semantic unsupervised learning framework for scene geometry perception.
- Improved depth prediction by 30% over state-of-art unsupervised algorithms.
- Submitted the paper as first author to IEEE CVPR 2019

Research Assistant, Tsinghua University, Beijing, China Sep. 2015 - Jun. 2017
Advisor: Li Li, Department of Automation
- Designed a simulation platform for micro-scope transportation at non-signal intersections
- Analyzed different cooperative driving strategies in traffic flow simulations
- Published the paper as first author in IEEE TVT 2018

PUBLICATIONS

Y. Meng, Y. Lu, A. Raj, S. Sunarjo, G. Bansal, R. Guo, T.Javidi, and D. Bharadia, "SIGNet: Semantic Instance Aided Unsupervised 3D Geometry Perception," *IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, CA, Jun. 2019 (Under review)

Q. Feng, **Y. Meng**, M. Shan, and N. Atanasov, "Localization and Mapping using Deformable Semantic Models," *IEEE Intl. Conf. on Robotics and Automation (ICRA)* , Montreal, Canada, Jun. 2019 (Under review)

Y. Meng, L. Li, F. Wang, K. Li, and Z. Li, "Analysis of Cooperative Driving Strategies for Nonsignalized Intersections," *IEEE Transactions on Vehicular Technology, 67 (4)*, 2900-2911

PROFESSIONAL EXPERIENCE

Software Engineering Intern, Google Inc, New York, NY, USA Jun. 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
- Implemented real-time perception algorithm for cameras on bus using Faster-RCNN
- Optimized the image processing procedures and increased the pipeline efficiency by 40%

TECHNICAL SKILLS

Programming: Python, C++, Matlab, C#

Tools: Tensorflow, Pytorch, ROS, Git, Linux, Docker, Kubernetes, LaTeX

SELECTED COURSES

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**)

AWARDS AND HONORS

Study Scholarship of Tsinghua University, 2014,2015

Sports Scholarship of Tsinghua University, 2014,2015

8^{th} Award in RoboCup@Home Competition, 2015

First Award in first Tsinghua Undergraduate Class Futsal Match, 2014

First Awards in male 1500m, 4×800m, 4×400m races in Tsinghua Athletic Meeting

Tsinghua high school male 3000m race record holder (2012-current)

REFERENCES

Nikolay A. Atanasov, Assistant Professor, Electrical and Computer Engineering, University of California, San Diego, (858) 534-4105, natanasov@ucsd.edu

Dinesh Bharadia, Assistant Professor, Electrical and Computer Engineering, University of California, San Diego, (650) 391-5157, dineshb@ucsd.edu

Tara Javidi, Professor, Electrical and Computer Engineering, University of California, San Diego, (858) 822-4924, tjavidi@eng.ucsd.edu