Yue Meng

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EDUCATION

M.S. in Electrical and Computer Engineering Sep. 2017 - Present
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 - Present
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's 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
- Published the paper as first author in **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," in *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*(**CVPR**), CA, Jun. 2019 (acceptance rate 25.2%)

Q. Feng, **Y. Meng**, M. Shan, and N. Atanasov, "Localization and Mapping using Deformable Semantic Models," submitted to *IEEE International Conference on Robotics and Automation*(**ICRA**) , Montreal, Canada, May. 2019

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

TEACHING EXPERIENCE

Teaching Assistant, University of California, San Diego, CA, USA Jan. 2019 - Mar. 2019
Instructor: Behrouz Touri, Electrical and Computer Engineering
Course: Stochastic Processes in Dynamic Systems I

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

Languages: Proficient in English and Chinese

SELECTED COURSES

MATH245B	Convex Analysis and Optimization II	(ongoing)
MAE281A	Nonlinear Systems	(ongoing)
CSE254	Intrinsic dimension and Dimension reduction	(ongoing)
ECE272A	Stochastic Processes in Dynamic Systems I	**A+, 1/78**
ECE269	Linear Algebra and Applications	**A+, 1/191**
ECE276A	Sensing and Estimation in Robotics	**A, 3/113**
ECE273	Convex Optimization and Applications	**A, 4/107**
ECE271A	Statistical Learning I	**A+, 5/202**
CSE252A	Computer Vision I	**A+, 5/165**
CSE253	Neural Networks for Pattern Recognition	**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-Present)**

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