

Yue Meng

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EDUCATION

M.S. in Electrical and Computer Engineering

University of California San Diego, CA, USA

Sep. 2017 - Mar. 2019

GPA: 3.97/4.00

B.E. in Department of Automation

Tsinghua University, Beijing, China

Aug. 2013 - Jul. 2017

GPA: 87/100, rank: top 30%

FIELD OF INTERESTS

3D reconstruction; autonomous driving; videos understanding; few-shot learning

RESEARCH EXPERIENCE

AI Resident, IBM Thomas J. Watson Research Center, NY, USA

Sep. 2019 - Current

Advisor: Rogerio S. Feris, Research Manager

- Efficient video understanding
- Few-shot learning for action recognition

Research Intern, Honda Research Institute, CA, USA

Mar. 2019 - Jun. 2019

Advisor: Yi-Ting Chen, Research Scientist

- Proposed a bird’s-eye view representation for driving scene understanding
- Improved behavior classification on Honda Driving Dataset using I3D and graph convolution

Research Assistant, University of California San Diego, CA, USA

Jan. 2018 - Mar. 2019

Advisor: Nikolay A. Atanasov, Electrical and Computer Engineering

- Developed semantic perception and tracking pipeline for 3D reconstruction
- Conducted research in object level 3D compression for mapping
- Presented on **RSS 2018** workshop and published the work to **IROS 2019**

Research Assistant, University of California San Diego, CA, USA

Sep. 2018 - Dec. 2018

Advisor: Dinesh Bharadia, Tara Javidi, Electrical and Computer Engineering

- Proposed semantic unsupervised learning framework for depth and flow estimation
- Improved depth prediction by 30% over S.T.O.A. and published in **CVPR 2019** as first author

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 cooperative driving strategies and published in **IEEE TVT 2018** as first author

PUBLICATIONS

C. Li, **Y. Meng**, S. Chan and Y. Chen, “Learning 3D-aware Egocentric Spatial-Temporal Interaction via Graph Convolutional Networks,” in *IEEE Int. Conf. on Robotics and Automation (ICRA)*, 2020

Q. Feng, **Y. Meng**, M. Shan, and N. Atanasov, “Localization and Mapping using Instance-specific Mesh Models,” in *IEEE/RSJ Int. Conf. on Intelligent Robots and Systems (IROS)*, 2019

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 *IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, 2019 (acceptance rate 25.2%)

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

PREPRINTS

Y. Meng, C. Lin, R. Panda, P. Sattigeri, L. Karlinsky, K. Saenko, A. Oliva and R. Feris, “AdaFuse: Adaptive Temporal Fusion Network for Efficient Action Recognition,”

Y. Meng, C. Lin, R. Panda, P. Sattigeri, L. Karlinsky, K. Saenko, A. Oliva and R. Feris, “AR-Net: Adaptive Frame Resolution for Efficient Action Recognition,”

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 Geo, Mountain View, CA, USA Jun. 2019 - Sep. 2019
– Improved user-photo timestamp correction by using image content-based annotation

Software Engineering Intern, Google Ads, New York, NY, USA Jun. 2018 - Sep. 2018
– Migrated Ads prediction modules from Sibyl to Tensorflow platform

System Development Intern, TuSimple, Beijing, China Jul. 2017 - Sep. 2017
– Implemented Faster-RCNN for cameras on bus and optimized the pipeline by 40%

TECHNICAL SKILLS

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

Tools: Tensorflow, Pytorch, ROS, Git, Linux, Docker, Kubernetes, L^AT_EX

Languages: Proficient in English and Chinese

GRADUATE COURSES (ALL)

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
CSE254	Intrinsic dimension and Dimension reduction	A, */18
MATH245B	Convex Analysis and Optimization II	A, */25
ECE271C	Deep Learning and Applications	A, 13/33
MAE281A	Nonlinear Systems	A-, 15/39

AWARDS AND HONORS

Study Scholarship of Tsinghua University, 2014, 2015

Sports Scholarship of Tsinghua University, 2014, 2015

8th award in RoboCup@Home Competition, 2015

The champion in first Tsinghua Undergraduate Class Futsal Match, 2014

1st awards in male 1500m, 4×800m, 4×400m races in Tsinghua Athletic Meeting

1st awards in male 5000m race in Tsinghua Alumni Athletic Meeting

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