

Li Ding

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OVERVIEW	<ul style="list-style-type: none">• Research interests: computer vision, human-computer interaction, computational psychology• 3 years of full-time research experience in autonomous vehicles domain, leading the research and development effort of projects including external scene perception and driver monitoring systems• Publications (first-author) in top-tier CV and AI conferences/workshops, e.g., CVPR, NeurIPS• Work experience with major machine/deep learning frameworks and large-scale datasets	
EDUCATION	Massachusetts Institute of Technology , Cambridge, MA <i>Graduate Study in Electrical Engineering and Computer Science (non-degree)</i>	2019.9 - 2020.1
	University of Rochester , Rochester, NY <i>M.S. in Data Science</i>	2016.6 - 2017.5
	Central University of Finance and Economics , Beijing, China <i>B.S. in Statistics</i>	2012.9 - 2016.6
EXPERIENCE	Massachusetts Institute of Technology , Cambridge, MA <i>Research Engineer</i> <ul style="list-style-type: none">• Advisor: Dr. Lex Fridman and Dr. Bryan Reimer• Work on autonomous vehicles and human-centered AI, develop deep learning and computer vision algorithms for real-time driving scene perception and driver monitoring systems	2017.9 - present
	University of Rochester , Rochester, NY <i>Research Associate</i> <ul style="list-style-type: none">• Advisor: Prof. Chenliang Xu• Worked on weakly-supervised action recognition in untrimmed videos	2017.5 - 2017.9
PUBLICATIONS	PEER-REVIEWED <ol style="list-style-type: none">[1] L. Ding, M. Glazer, M. Wang, B. Mehler, B. Reimer, and L. Fridman, “MIT-AVT Clustered Driving Scene Dataset: Evaluating Perception Systems in Real-World Naturalistic Driving Scenarios,” in <i>IEEE Intelligent Vehicles Symposium: Workshop on Naturalistic Driving Data Analytics</i>, 2020. (selected for oral presentation)[2] L. Fridman, L. Ding, B. Jenik, and B. Reimer, “Arguing Machines: Human Supervision of Black Box AI Systems That Make Life-Critical Decisions,” in <i>Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR): Workshop on Autonomous Driving</i>, 2019.[3] L. Fridman, D. E. Brown, M. Glazer, W. Angell, S. Dodd, B. Jenik, J. Terwilliger, A. Patsekin, J. Kindelsberger, L. Ding, and S. Seaman, <i>et al.</i>, “MIT Advanced Vehicle Technology Study: Large-Scale Naturalistic Driving Study of Driver Behavior and Interaction with Automation,” <i>IEEE Access</i>, vol. 7, pp. 102021–102038, 2019.[4] L. Ding and C. Xu, “Weakly-Supervised Action Segmentation with Iterative Soft Boundary Assignment,” in <i>Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)</i>, 2018.[5] L. Fridman, H. Schmidt, J. Terwilliger, and L. Ding, “Human Interaction with Deep Reinforcement Learning Agents in Virtual Reality,” in <i>Advances in Neural Information Processing Systems (NeurIPS): Deep Reinforcement Learning Workshop</i>, 2018.	

UNDER REVIEW

- [1] **L. Ding** and L. Fridman, "Object as Distribution," under review at *Advances in Neural Information Processing Systems (NeurIPS)*, *arXiv preprint arXiv:1907.12929*, 2020.
- [2] **L. Ding**, J. Terwilliger, A. Parab, M. Wang, B. Mehler, B. Reimer, and L. Fridman, "Pupils and Blinks in the Wild," under review at *European Conference on Computer Vision (ECCV)*, 2020.
- [3] **L. Ding**, M. Wang, R. Sherony, B. Mehler, and B. Reimer, "Semantic Understanding on Semantic Scenes," under review at *British Machine Vision Conference (BMVC)*, 2020.
- [4] **L. Ding**, J. Terwilliger, R. Sherony, B. Reimer, and L. Fridman, "Value of Temporal Dynamics Information in Driving Scene Segmentation," under review at *IEEE Transactions on Intelligent Vehicles*, *arXiv preprint arXiv:1904.00758*, 2019.

TECHNICAL REPORTS

- [1] **L. Ding**, J. Terwilliger, R. Sherony, B. Reimer, and L. Fridman, "MIT DriveSeg Dataset for Dynamic Driving Scene Segmentation," 2019.
- [2] **L. Ding** and C. Xu, "Tricornet: A Hybrid Temporal Convolutional and Recurrent Network for Video Action Segmentation," *arXiv preprint arXiv:1705.07818*, 2017.

PRESENTATIONS	Data-Driven Computer Vision Research for Human-Centered Autonomous Vehicles <i>Invited talk at MIT CSAIL (Data Systems Group)</i>	2019.10
	Weakly-Supervised Action Segmentation with Iterative Soft Boundary Assignment <i>Poster presentation at CVPR 2018</i>	2018.6
	Human Action Recognition with Deep Convolutional Neural Networks <i>Poster presentation at Center for Integrated Research Computing, University of Rochester</i>	2017.5

HONORS AND AWARDS	SCHOLARSHIPS	
	• Half-Tuition Scholarship for Graduate Study, <i>University of Rochester</i>	2016
	• Excellent Youth of the Year (top 2%), <i>Central Univ. of Finance and Economics</i>	2015
	COMPETITIONS	
	• 4th Place (among 150 teams, top 3%), <i>MIT 6.869 Miniplaces Challenge</i>	2019
	• Bronze Medal (107th of 1972, top 6%), <i>Kaggle Data Science Bowl</i>	2017
	• Meritorious Winner (top 5%), <i>COMAP Mathematical Contest In Modeling</i>	2015

SERVICE	REVIEWER	
	• IEEE Transactions on Circuits and Systems for Video Technology	2018 - 2020
	• IEEE Access	2018
	TEACHING ASSISTANT	
	• MIT 6.S094: Deep Learning for Self-Driving Cars	Winter 2018 & 2019
	• MIT 6.S093: Human-Centered Artificial Intelligence	Winter 2019
	• MIT 6.S099: Artificial General Intelligence	Winter 2018

MISC.	SIDE PROJECTS	
	• Created tutorials and competitions for MIT Deep Learning courses (7k stars on Github)	
	• Prepared interview materials for AI Podcast with Dr. Lex Fridman (12M views on Youtube)	
	• Taught a summer/winter workshop at MIT with Dr. Tom Bertalan to high school students on building and programming autonomous robocars	
	PROGRAMMING & DEEP LEARNING	
	Python, JavaScript, C++, TensorFlow, PyTorch, Keras, TensorFlow.js.	