

## Lifeng Fan

---

CONTACT INFORMATION	9407 Boelter Hall University of California, Los Angeles Los Angeles, CA 90095, USA	<i>Phone:</i> (424) 535-8754 <i>Email:</i> lfan@ucla.edu <i>Homepage:</i> <a href="https://lifengfan.github.io/">https://lifengfan.github.io/</a>
EDUCATION	<b>University of California, Los Angeles, CA, USA</b> Ph.D. Candidate in Statistics GPA: 3.97/4.00	09/2016 - 06/2021 (expected)
	<b>Zhejiang University, Hangzhou, China</b> B.S. in Statistics, Minor in Public Management GPA: 3.98/4.00	09/2012 - 06/2016
RESEARCH EXPERIENCE	<b>Facebook Reality Lab, USA</b> Research Intern • Egocentric action anticipation via multi-scale graph representation.	06/2020 - 11/2020 <i>Mentor:</i> Tanya Jonker
	<b>DMAI Inc., Los Angeles, CA, USA</b> Software Engineering Intern • Cognitive Platform: detecting human body pose, head pose and pointing gesture; detecting human interaction and communication; modeling human mind, including belief, attention and intention	06/2019 - 03/2020 <i>Mentor:</i> Tao Yuan
	<b>Center for Vision, Cognition, Learning and Autonomy, UCLA</b> Graduate Student Researcher • Cooperation and Communication Mechanisms: the emergence of communicative cooperation in a problem-solving task. • Theory of Mind: human mental state inference in VR environment and real videos • Understanding human nonverbal communication by spatio-temporal reasoning networks • Social Scene Understanding: inferring shared attention in social scene videos • Cognitive Modeling: perception of human interaction based on motion trajectories	09/2016 - present <i>Advisor:</i> Song-Chun Zhu
	<b>The Computational Vision and Learning Lab, UCLA</b> Cross-Disciplinary Scholars in Science and Technology (CSST) Program • Discovering hierarchical representations for action recognition • Honored with Best Presentation Award for excellent research and final presentation	07/2015 - 09/2015 <i>Advisor:</i> Hongjing Lu
	<b>State Key Lab of CAD, ZJU</b> Research Assistant • Texture synthesis optimization by Expectation Maximization algorithm	06/2014 - 06/2016 <i>Advisor:</i> Ming Li
PUBLICATIONS	(* indicates equal contribution) Z. Zheng, S. Qiu, <b>L. Fan</b> , Y. Zhu, S.-C. Zhu. Grice: A Grammar-based Dataset for Recovering Implicature and Conversational Reasoning. <i>ACL-IJCNLP, 2021</i> ( under review. )  <b>L. Fan*</b> , S. Qiu*, Z. Zheng, T. Gao, S.-C. Zhu and Y. Zhu. Learning Triadic Belief Dynamics in Nonverbal Communication from Videos. <i>IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2021</i> . (Oral presentation)  Y. Zhu, T. Gao, <b>L. Fan</b> , S. Huang, M. Edmonds, H. Liu, F. Gao, C. Zhang, S. Qi, Y. Wu,	

J. B. Tenenbaum, S.-C. Zhu. Dark, Beyond Deep: A Paradigm Shift to Cognitive AI with Human-like Commonsense. *Engineering, Special Issue on Artificial Intelligence*, 2020

T. Yuan, H. Liu, **L. Fan**, Z. Zheng, T. Gao, Y. Zhu, S.-C. Zhu. Understanding False-Belief by Joint Inference of Object States, Robot Knowledge, and Human Beliefs. *IEEE International Conference on Robotics and Automation (ICRA)*, 2020

**L. Fan**<sup>\*</sup>, W. Wang<sup>\*</sup>, S. Huang, X. Tang and S.-C. Zhu. Understanding Human Gaze Communication by Spatio-temporal Graph Reasoning. *IEEE International Conference on Computer Vision (ICCV)*, 2019.

**L. Fan**<sup>\*</sup>, Y. Chen<sup>\*</sup>, P. Wei, W. Wang and S.-C. Zhu. Inferring Shared Attention in Social Scene Videos. *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2018. (Acceptance Rate: 29%)

T. Shu<sup>\*</sup>, Y. Peng<sup>\*</sup>, **L. Fan**, H. Lu and S.-C. Zhu. Perception of Human Interaction Based on Motion Trajectories: from Aerial Videos to Decontextualized Animations. *Topics in Cognitive Science (TopiCS)*, 10(1): 225 - 241, 2018.

T. Shu<sup>\*</sup>, Y. Peng<sup>\*</sup>, **L. Fan**, H. Lu and S.-C. Zhu. Inferring Human Interaction from Motion Trajectories in Aerial Videos. *39th Annual Meeting of the Cognitive Science Society (CogSci)*, 2017. (Oral presentation, Acceptance rate: 255/873 = 29%, Computational Modeling Prize)

SELECTED HONORS AND AWARDS	Most Promising Computational Statistician, UCLA Statistics Department	06/2017
	Computational Modeling Prize, Cognitive Science Society	06/2017
	The 6th Ten Top Students in Zhejiang University, Zhejiang University	12/2015
	Chu Kochen Scholarship, Zhejiang University	10/2015
	Best Presentation Award, UCLA-CSST Summer Research Program	09/2015
	Honorable Mention, Mathematical Contest in Modeling (MCM)	04/2015
	Tang Lixin Scholarship, Zhejiang University	10/2014 - present
	First Prize in the 12th Mathematical Modeling Contest of Zhejiang University	06/2014
	National Scholarship of China, Ministry of Education, China	2013, 2014

TEACHING EXPERIENCE	<b>Teaching Assistant, UCLA, Department of Statistics</b>	
	<i>STATS 202A: Statistics Programming</i>	Fall 2017
	<i>STATS 10: Introduction to Statistical Reasoning</i>	Spring 2017
	<i>STATS 102C: Introduction to Monte Carlo Methods</i>	Fall 2018
	<i>STATS 12: Intro to Statistical Methods for Geography and Environmental Studies</i>	Winter 2018
	<i>STATS 100A: Introduction to Probability</i>	Winter 2019
	<i>STATS 232C: Cognitive Artificial Intelligence</i>	Spring 2020
	<i>STATS 100B: Introduction to Mathematical Statistics</i>	Winter 2021

PROGRAMMING LANGUAGES C/C++, C#, Python, MATLAB, R,  $\text{\LaTeX}$ , HTML

DEEP LEARNING FRAMEWORKS Pytorch, Tensorflow, Keras