

Chi Zhang

PH.D., COMPUTER SCIENCE, UNIVERSITY OF CALIFORNIA, LOS ANGELES

EDUCATION

University of California - Los Angeles, Los Angeles, U.S.

Doctor of Philosophy, Computer Science

Advisor: Prof. Song-Chun Zhu

GPA: 4.00/4.00

Sept 17 - Aug 22

University of California - Los Angeles, Los Angeles, U.S.

Master of Science, Computer Science

Advisor: Prof. Song-Chun Zhu

GPA: 4.00/4.00

Sept. 17 - March 19

Zhejiang University, Hangzhou, China

Bachelor of Engineering, Computer Science

GPA: 3.93/4.00 Rank: 1/17

Sept. 13 - June 17

RESEARCH INTERESTS

Cognitive Reasoning, Abstract Reasoning, Visual Reasoning, Concept Learning, Neural-Symbolic Methods

CONFERENCES

Manjie Xu, Guangyuan Jiang, Wei Liang, **Chi Zhang**, Yixin Zhu, Active Reasoning in an Open-World Environment, in *Proceedings of Advances in Neural Information Processing Systems (NeurIPS)*, 2023

Guangyuan Jiang*, Manjie Xu*, Song-Chun Zhu, Wenjuan Han, **Chi Zhang**, Yixin Zhu, Evaluating and Inducing Personality in Pre-trained Language Models, in *Proceedings of Advances in Neural Information Processing Systems (NeurIPS)*, 2023

Manjie Xu*, Guangyuan Jiang*, Wei Liang, **Chi Zhang**, Yixin Zhu, Interactive Visual Reasoning under Uncertainty, in *Proceedings of Advances in Neural Information Processing Systems (NeurIPS)*, 2023

Bo Dai, Linge Wang, Baoxiong Jia, Zeyu Zhang, Song-Chun Zhu, **Chi Zhang**, Yixin Zhu, X-VoE: Measuring eXplanatory Violation of Expectation in Physical Events, in *Proceedings of International Conference on Computer Vision (ICCV) (ICCV)*, 2023

Guangyuan Jiang, Manjie Xu, Shiji Xin, Wei Liang, Yujia Peng, **Chi Zhang**, Yixin Zhu, MEWL: Few-shot multimodal word learning with referential uncertainty, in *Proceedings of International Conference on Machine Learning (ICML)*, 2023

Shiqian Li*, Kewen Wu*, **Chi Zhang**, Yixin Zhu, On the Learning Mechanisms in Physical Reasoning, in *Proceedings of Advances in Neural Information Processing Systems (NeurIPS)*, 2022

Chi Zhang*, Sirui Xie*, Baoxiong Jia*, Ying Nian Wu, Song-Chun Zhu, Yixin Zhu, Learning Algebraic Representation for Systematic Generalization in Abstract Reasoning, in *Proceedings of the European Conference on Computer Vision (ECCV)*, 2022

Chi Zhang, Lijuan Liu, Xiaoxue Zang, Frederick Liu, Hao Zhang, Xinying Song, Jindong Chen, DETR++: Taming Your Multi-Scale Detection Transformer, in *T4V: Transformers for Vision @ CVPR*, 2022

Chi Zhang, Baoxiong Jia, Mark Edmonds, Song-Chun Zhu, Yixin Zhu, ACRE: Abstract Causal Reasoning Beyond Covariation, in *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2021

Chi Zhang*, Baoxiong Jia*, Song-Chun Zhu, Yixin Zhu, Abstract Spatial-Temporal Reasoning via Probabilistic Abduction and Execution, in *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2021

Xu Xie, **Chi Zhang**, Yixin Zhu, Ying Nian Wu, Song-Chun Zhu, Congestion-aware Multi-agent Trajectory Prediction for Collision Avoidance, in *Proceedings of International Conference on Robotics and Automation (ICRA)*, 2021

Wenhe Zhang, **Chi Zhang**, Yixin Zhu, Song-Chun Zhu, Machine Number Sense: A Dataset of Visual Arithmetic Problems for Abstract and Relational Reasoning, in *Proceedings of AAAI Conference on Artificial Intelligence (AAAI)*, 2020 (**Oral**)

Chi Zhang*, Baoxiong Jia*, Feng Gao, Yixin Zhu, Hongjing Lu, Song-Chun Zhu, Learning Perceptual Inference by Contrasting, in *Proceedings of Advances in Neural Information Processing Systems (NeurIPS)*, 2019 (**Spotlight**)

Xu Xie*, Changyang Li*, **Chi Zhang**, Yixin Zhu, Song-Chun Zhu, Learning Virtual Grasp with Failed Demonstrations via Bayesian Inverse Reinforcement Learning, in *Proceedings of International Conference on Intelligent Robots and Systems (IROS)*, 2019

Chi Zhang*, Feng Gao*, Baoxiong Jia, Yixin Zhu, Song-Chun Zhu, RAVEN: A Dataset for Relational and Analogical Visual reasoNing, in *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2019

Chi Zhang, Yixin Zhu, Song-Chun Zhu, MetaStyle: Three-Way Trade-Off Among Speed, Flexibility, and Quality in Neural Style Transfer, in *Proceedings of AAAI Conference on Artificial Intelligence (AAAI)*, 2019

Hangxin Liu, **Chi Zhang**, Yixin Zhu, Chenfanfu Jiang, Song-Chun Zhu, Mirroring without Overimitation: Learning Functionally Equivalent Manipulation Actions, in *Proceedings of AAAI Conference on Artificial Intelligence (AAAI)*, 2019

Siyi Li, Tianbo Liu, **Chi Zhang**, Dit-Yan Yeung, Shaojie Shen, Learning Unmanned Aerial Vehicle Control for Autonomous Target Following, in *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, 2018.

JOURNALS

Chi Zhang, Jiajun Song, Siyu Li, Yitao Liang, Yuxi Ma, Wei Wang, Yixin Zhu, Song-Chun Zhu, Proposing and solving olympiad geometry with guided tree search. Under review.

Chi Zhang, Baoxiong Jia, Yixin Zhu, Song-Chun Zhu, Human-level few-shot concept induction through minimax entropy learning, *Science Advances* 10.16 (2024): eadg2488.

Yixin Zhu, Tao Gao, Lifeng Fan, Siyuan Huang, Mark Edmonds, Hangxin Liu, Feng Gao, **Chi Zhang**, Siyuan Qi, Ying Nian Wu, Joshua B. Tenenbaum, Song-Chun Zhu, Dark, Beyond Deep: A Paradigm Shift to Cognitive AI with Humanlike Common Sense, *Engineering*, Volume 6, Issue 3, Pages 310-345

Zheqian Chen, **Chi Zhang**, Zhou Zhao, Deng Cai, Question Retrieval for Community-based Question Answering via Heterogeneous Social Influential Network, *Neurocomputing*, Volume 285, Pages 117-124

PATENTS

Xiangdong Li, Shihong Lv, Yikun Wang, Xiaowo Sun, **Chi Zhang**, A Method of Exact 3D Modeling Based on Natural Gestures via Data Gloves. Publication number: CN104778746 A.

SERVICE	I review for CVPR, ICCV, ECCV, AAAI, NeurIPS, ICLR, ICML, TIP, TNNLS and Psychology Review.
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PROFESSIONAL EXPERIENCE	Research Scientist <i>Beijing Institute for General Artificial Intelligence</i> <i>Oct. 1, 2022 - Now</i>
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Research Intern <i>Google Research</i> <i>June 21, 2021 - Sept. 17, 2021</i>

Applied Research Scientist Intern <i>Amazon</i> <i>March 22, 2021 - June 11, 2021</i>
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HONORS & SCHOLARSHIPS	Travel Award , NeurIPS, 2019 First-class Academic Excellence Scholarship , Zhejiang University, 2013 - 2016 First-class Research and Innovation Scholarship , Zhejiang University, 2015 Chinese Talent Scholarship , Asahi Kasei, 2016 Outstanding University Student Scholarship , Baosteel Group, 2016 Meritorious Winner of Mathematical Contest in Modeling , 2015
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SELECTED PROJECTS	MXNet <i>Hong Kong University of Science and Technology</i> <i>Sept. 16, 2016 - April 17, 2017</i>
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