

Wang Bill Zhu

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Education	University of Southern California , Los Angeles, US <i>Doctor of Philosophy</i> , Computer Science Advisors: Jesse Thomason, Robin Jia	Jan 2021 - Apr 2026
	University of Southern California , Los Angeles, US <i>Master of Science</i> , Computer Science	Jan 2021 - Aug 2024
	Simon Fraser University , Vancouver, Canada <i>Bachelor of Applied Science</i> , Computer Science	Sep 2017 - Aug 2020
	Zhejiang University , Hangzhou, China <i>Bachelor of Engineering</i> , Computer Science	Sep 2015 - Aug 2020
Research Interest	I work on natural language processing applications on cross-disciplinary domains including multimodal , healthcare , robotics , psychology , with an emphasis on building verifiable systems to solve real-world problems in these domains.	
Employment	Researcher Intern , Meta Reality Labs Redmond, WA Hosts: Xin Luna Dong, Kai Sun	May 2024 - Dec 2024
	Student Researcher , Google Deepmind Kirkland, WA Hosts: Kristina Toutanova, Alekh Agarwal	May 2023 - Nov 2023
Publications	Wang Bill Zhu , Miaosen Chai, Ishika Singh, Robin Jia, Jesse Thomason. PSALM-V: Automating Symbolic Planning in Interactive Visual Environments with Large Language Models . <i>IEEE International Conference on Robotics and Automation (ICRA)</i> , 2026.	
	Wang Bill Zhu , Tianqi Chen, Xinyan Velocity Yu, Ching Ying Lin, Jade Law, Mazen Jizzini, Jorge J. Nieva, Ruishan Liu, Robin Jia. Cancer-Myth: Evaluating AI Chatbot on Patient Questions with False Presuppositions . <i>International Conference on Learning Representations (ICLR)</i> , 2026.	
	Ang Li, Charles Wang, Kaiyu Yue, Zikui Cai, Ollie Liu, Deqing Fu, Peng Guo, Wang Bill Zhu , Vatsal Sharan, Robin Jia, Willie Neiswanger, Furong Huang, Tom Goldstein, Micah Goldblum. Zebra-CoT: A Dataset for Interleaved Vision Language Reasoning . <i>International Conference on Learning Representations (ICLR)</i> , 2026.	
	Wang Bill Zhu , Deqing Fu, Kai Sun, Yi Lu, Zhaojiang Lin, Seungwhan Moon, Kanika Narang, Mustafa Canim, Yue Liu, Anuj Kumar, Xin Luna Dong. VisualLens: Personalization through Visual History . <i>Conference on Neural Information Processing Systems (NeurIPS)</i> , 2025.	
	Wang Bill Zhu , Ishika Singh, Robin Jia, and Jesse Thomason. Language Mod-	

els can Infer Action Semantics for Classical Planners from Environment Feedback. *North American Chapter of the Association for Computational Linguistics (NAACL), 2025.*

Deqing Fu, **Wang Zhu**, Tong Xiao, Rui Wang, Pengchuan Zhang, Guan Pang, Robin Jia, Lawrence Chen. **TLDR: Token-Level Detective Reward Model for Large Vision Language Models.** *International Conference on Learning Representations (ICLR), 2025.*

Jiacheng Chen, Tianhao Liang, Sherman Siu, Zhengqing Wang, Kai Wang, Yubo Wang, Yuansheng Ni, **Wang Zhu**, Ziyang Jiang, Bohan Lyu, Dongfu Jiang, Xuan He, Yuan Liu, Hexiang Hu, Xiang Yue, Wenhui Chen. **Mega-Bench: Scaling Multimodal Evaluation to Over 500 Real-World Tasks.** *International Conference on Learning Representations (ICLR), 2025.*

Wang Zhu, Alekh Agarwal, Mandar Joshi, Robin Jia, Jesse Thomason, Kristina Toutanova. **Efficient End-to-End Visual Document Understanding with Rationale Distillation.** *North American Chapter of the Association for Computational Linguistics (NAACL), 2024*

Wang Zhu, Jesse Thomason, Robin Jia. **Chain-of-Questions Training with Latent Answers for Robust Multistep Question Answering?** *Empirical Methods in Natural Language Processing (EMNLP), 2023.*

Wang Zhu, Ishika Singh*, Yuan Huan*, Robin Jia, Jesse Thomason. **VLN Pretraining Still Works with Nonsensical or Irrelevant Instructions.** *Open-Domain Reasoning Under Multi-Modal Settings at CVPR (O-DRUM, CVPR), 2023.*

Jacob Krantz*, Shurjo Banerjee*, **Wang Zhu**, Jason J Corso, Peter Anderson, Stefan Lee, Jesse Thomason. **Iterative Vision-and-Language Navigation.** *Conference on Computer Vision and Pattern Recognition (CVPR), 2023.*

Wang Zhu, Jesse Thomason, Robin Jia. **Generalization Differences between End-to-End and Neuro-Symbolic Vision-Language Reasoning Systems.** *Findings of EMNLP, 2022.*

Yejiu Liu*, **Wang Zhu***, Shaolei Ren. **Navigating Memory Construction by Global Pseudo-Task Simulation for Continual Learning.** *Conference on Neural Information Processing Systems (NeurIPS), 2022.*

Wang Zhu*, Hexiang Hu*, Jiacheng Chen, Zhiwei Deng, Vihan Jain, Eugene Ie, Fei Sha. **BabyWalk: Going Farther in Vision-and-Language Navigation by Taking Baby Steps.** *Annual Conference of the Association for Computational Linguistics (ACL), 2020.*

Guiliang Liu, Oliver Schulte, **Wang Zhu**, Qingcan Li. **Toward Interpretable Deep Reinforcement Learning with Linear Model U-Trees.** *European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML-PKDD), 2018.*

Guiliang Liu, **Wang Zhu**, Oliver Schulte. **Interpreting Deep Sports Analytics: Valuing Actions and Players in the NHL.** *Machine Learning and Data Mining for Sports Analytics Workshop at ECML-PKDD (MLSA, ECML-PKDD), 2018.*

Preprints	<p>Amirmohammad Nazari, Sadra Sabouri, Wang Bill Zhu, Robin Jia, Souti Chattopadhyay, Mukund Raghothaman. Synthesizing Program Analyzers for Interactive Code Understanding.</p> <p>Jacob Choi, Shuying Cao, Xingjian Dong, Wang Bill Zhu, Robin Jia, Sai Praneeth Karimireddy. ContextLeak: Auditing Leakage in Private In-Context Learning Methods. <i>arXiv:2507.16746</i>.</p> <p>Liancheng Gong, Wang Bill Zhu, Jesse Thomason, Li Zhang. Zero-Shot Iterative Formalization and Planning in Partially Observable Environments. <i>arXiv:2505.13126</i>.</p> <p>Wang Zhu, Peter Shaw, Tal Linzen, Fei Sha. Learning to Generalize Compositionally by Transferring Across Semantic Parsing Tasks. <i>arXiv preprint: 2111.05013, 2021</i>.</p>																				
Awards & Grants	<table border="0"> <tr> <td>NSF ACCESS Computing Grant (CIS251157)</td> <td style="text-align: right;">Oct 2025</td> </tr> <tr> <td>USC Graduate School Fellowship</td> <td style="text-align: right;">Jan 2021</td> </tr> <tr> <td>SFU Presidents Honour Roll</td> <td style="text-align: right;">Oct 2018</td> </tr> <tr> <td>Undergraduate Student Research Awards</td> <td style="text-align: right;">May 2018</td> </tr> <tr> <td>The Mathematical Contest in Modeling, Meritorious Prize</td> <td style="text-align: right;">Feb 2017</td> </tr> </table>	NSF ACCESS Computing Grant (CIS251157)	Oct 2025	USC Graduate School Fellowship	Jan 2021	SFU Presidents Honour Roll	Oct 2018	Undergraduate Student Research Awards	May 2018	The Mathematical Contest in Modeling, Meritorious Prize	Feb 2017										
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Teaching	<p>Invited Lecturer, CSCI 444 (Natural Language Processing) Fall 2024 Invited lecturer for a 50-student class, delivered a lecture on vision-language reasoning.</p> <p>Head Teaching Assistant, CSCI 467 (Introduction to Machine Learning) Fall 2023 Head TA of 50-student class, managed a team of 6 TA and CPs, led three discussion sections, proofread all assignments and designed questions for the midterm and final.</p> <p>Teaching Assistant, CSCI 567 (Machine Learning) Fall 2022 TA of 260-student class, led three discussion sections, graded quizzes, and designed one assignment and several questions for the quizzes.</p>																				
Professional Services	<p>Natural Language Processing: Reviewer for EMNLP (2021, 2022, 2023), ACL (2023), ACL Rolling Review (2023, 2024, 2025), COLM (2026).</p> <p>Machine Learning: Reviewer for ICML (2022, 2026), NeurIPS (2024, 2025), ICLR (2026).</p>																				

Computer Vision:

Area Chair for ECCV (2026); Reviewer for CVPR (2023, 2024, 2025), ICCV (2023, 2025), ECCV (2024).

Robotics:

Reviewer for CoRL (2025), ICRA (2026), HRI (2026).

Invited Talks

“Domain-Adaptive Programming: Expanding the Boundaries of What LLMs Can Solve”

- EleutherAI Planning Reading Group, Los Angeles, CA, USA Mar 2025

“Domain-Adaptive Programming: Expanding the Boundaries of What LLMs Can Solve”

- USC ISI NLP Seminar, Los Angeles, CA, USA Jan 2025

“LLM Reasoning: A Mini Overview on Post-Training and Test-Time Compute”

- USC ML/NLP Reading Group, Los Angeles, CA, USA Mar 2025

“LLM Reasoning: A Mini Overview on Post-Training and Test-Time Compute”

- USC ML/NLP Reading Group, Los Angeles, CA, USA Mar 2025

“VisualLens: Personalization through Visual History.”

- Meta AR-AI Reading Group, Redmond, WA, USA Aug 2024

“Chain-of-Questions Training with Latent Answers for Robust Multistep Question Answering?”

- Google Seattle NLP Lunch, Kirkland, WA, USA Jul 2023

“VLN Pretraining Still Works with Nonsensical or Irrelevant Instructions”

- University of Southern California NLP Lunch, Los Angeles, CA, USA Apr 2023

“Multistep Reasoning Transferability across Machine Reading Comprehension Benchmarks”

- University of Southern California NLP Lunch, Los Angeles, CA, USA Nov 2022

“Generalization Differences between End-to-End and Neuro-Symbolic Vision-Language Reasoning Systems”

- Mila - Quebec AI Institute, Montreal, QC, Canada Oct 2022

“Evaluating the Robustness of Multi-Image Vision-and-Language Reasoning Systems”

- University of Southern California ML & Friends, Los Angeles, CA, USA Mar 2022