Sida I. Wang

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Education

2017 **Ph.D. in Computer Science**, Stanford University
Thesis: Learning adapative language interfaces through interaction
Advisors: Christopher D. Manning and Percy Liang

2011 **B.A.Sc. in Engineering Science**, University of Toronto
Majoring in Computer Engineering
Thesis: Learning to extract parameterized features by predicting transformed images
Advisor: Geoffrey E. Hinton

Experience

2019– **Research Scientist**, Fundamental AI Research (FAIR), Meta Platforms, Seattle, WA
2017–2019 **Research Instructor**, Department of Computer Science, Princeton, NJ
2017–2019 **Member**, School of Math, Institute for Advanced Study, Princeton, NJ
2018–2019 **Research Scientist (part-time)**, ASAPP Inc, New York, NY
2014 **Research Intern**, Brain Team, Google, Mountain View, CA
2010–2011 **Research Assistant**, Machine Learning Group, University of Toronto, Toronto, ON
2009–2010 **Staff Engineer**, Granite SemiCom, Toronto, ON
2009 **SDE Intern**, Search Relevance Team, Microsoft, Redmond WA
2008 **SDET Intern**, SkyDrive Team, Microsoft, Redmond WA

People

Yuxiang Wei, UIUC, PhD intern, 2025
Linyuan Gong, Berkeley, PhD intern (contractor), 2024
Naman Jain, Berkeley, PhD intern, 2024
Alex Gu, MIT, PhD intern, 2023
Tianyi Zhang, Stanford, PhD intern, 2022
Ansong Ni, Yale, PhD intern (co-host), 2022. Research Scientist at FAIR.
Freda Shi, TTIC, PhD intern (co-host), 2021. Assist. Prof. at U. Waterloo
Eleftheria Briakou, U. Maryland, PhD intern (co-host), 2021
Danlu Chen, UCSD, PhD intern, 2021
Bill Lin, USC, PhD intern (co-host), 2021. xAI
Freda Shi, TTIC, PhD intern, 2020
Sam Ginn, Stanford, undergrad intern, 2017
Nadav Cohen, Stanford, undergrad intern, 2017
Megha Srivastava, Stanford, undergrad intern, 2016

Services

Area Chair / Meta-reviewer

ICML '25 '24 '23, ICLR '25 '24 '23, '22 (highlighted AC), Neurips '22

Reviewer

Transactions of the ACL (TACL) '22–'25
International Conference on Learning Representations (ICLR) '15 '18 '19
Empirical Methods in Natural Language Processing (EMNLP) '15 '16 '17 '20
Neural Information Processing Systems (NIPS/NeurIPS) '14 '15 '17 '18
International Conference on Machine Learning (ICML) '14 '15 '17 '18
Journal of Machine Learning Research (JMLR) '15 '16
PLOS ONE '16
Neural Networks '15
Transactions on Pattern Analysis and Machine Intelligence (TPAMI) '14
Transactions on Neural Networks and Learning System '14
Artificial Intelligence '14

Teaching

2018	**Instructor**, COS495, Natural Language Processing, Princeton University
2015	**Teaching Assistant**, CS224N Natural Language Processing, Stanford University
2014	**Teaching Assistant**, CS229T Statistical Machine Learning, Stanford University
2008–2010	**Tutorial Leader**, MAT194,195 Calculus I, II, MAT185 Linear Algebra, University of Toronto

Awards and Honors

2016	Outstanding Paper Award, 0.85% of submissions, ACL 2016
2013–2016	NSERC Postgraduate Scholarship (PGS D) Natural Sciences and Engineering Research Council of Canada
2011	School of Engineering Fellowship, Stanford University
2011–2012	NSERC Postgraduate Scholarship (PGS M) Natural Sciences and Engineering Research Council of Canada
2009	Microsoft Tuition Scholarship
2010	2nd place, University of Toronto Undergraduate Mathematics Competition
2010	10th place team, Putnam Mathematical Competition
2008	3rd place, University of Toronto Undergraduate Mathematics Competition
2008	85th (58 pts), Putnam Mathematical Competition
2007	Ranked 3/300+, 2/253, 1/180 students in Engineering Science 1T0, Term 1, 2, 3

Invited Talks

The VerifAI Workshop, ICLR 2025
Accessing higher dimensions for unsupervised translation,
 Workshop on Building and Using Comparable Corpora, 2023
Interactive language learning (from human feedback)
 Vector Institute, 2018
 Facebook AI Research, 2017
 Simons Institute for the Theory of Computing, 2017
 Berkeley Robotics Group, 2017
 OpenAI, 2016
 UC Berkeley NLP group, 2016

Feature noising as regularization
Google Brain Team, Google, 2014
Nuance Research Lab, 2013

Fast and Adaptive Online Training of Feature-Rich Translation Models
Machine Translation Team, Google, 2013

Publications (Google Scholar for 2024-)

S. Wang. Accessing higher dimensions for unsupervised word translation. *arXiv preprint arXiv:2305.1420*, 2023.

T. Zhang, T. Yu, T. B. Hashimoto, M. Lewis, W. Yih, D. Fried, and S. I. Wang. Coder reviewer reranking for code generation. In *International Conference on Machine Learning (ICML)*, 2023.

A. Ni, S. Iyer, D. Radev, V. Stoyanov, W. Yih, S. I. Wang, and X. V. Lin. Lever: Learning to verify language-to-code generation with execution. In *International Conference on Machine Learning (ICML)*, 2023.

Y. Lai, C. Li, Y. Wang, T. Zhang, R. Zhong, L. Zettlemoyer, S. W. Yih, D. Fried, S. Wang, and T. Yu. DS-1000: A natural and reliable benchmark for data science code generation. In *International Conference on Machine Learning (ICML)*, 2023.

D. Fried, A. Aghajanyan, J. Lin, S. Wang, E. Wallace, F. Shi, R. Zhong, W. Yih, L. Zettlemoyer, and M. Lewis. Incoder: A generative model for code infilling and synthesis. In *International Conference on Learning Representations (ICLR)*, 2023.

F. Shi, D. Fried, M. Ghazvininejad, L. Zettlemoyer, and S. I. Wang. Natural language to code translation with execution. In *Empirical Methods in Natural Language Processing (EMNLP)*, 2022.

V. Zhong, A. W. Hanjie, S. Wang, K. Narasimhan, and L. Zettlemoyer. Silg: The multi-domain symbolic interactive language grounding benchmark. In *Advances in Neural Information Processing Systems (NeurIPS)*, 2021.

E. Briakou, S. I. Wang, L. Zettlemoyer, and M. Ghazvininejad. BitextEdit: Automatic bitext editing for improved low-resource machine translation. In *North American Association for Computational Linguistics (NAACL)*, 2022.

B. Y. Lin, S. Wang, X. V. Lin, R. Jia, L. Xiao, X. Ren, and W. Yih. On continual model refinement in out-of-distribution data streams. In *Association for Computational Linguistics (ACL)*, 2022.

H. Shi, L. Zettlemoyer, and S. I. Wang. Bilingual lexicon induction via unsupervised bitext construction and word alignment. In *Association for Computational Linguistics (ACL)*, 2021.

V. Zhong, M. Lewis, S. I. Wang, and L. Zettlemoyer. Grounded adaptation for zero-shot executable semantic parsing. In *Empirical Methods in Natural Language Processing (EMNLP)*, 2020.

M. Lewis, M. Ghazvininejad, G. Ghosh, A. Aghajanyan, S. I. Wang, and L. Zettlemoyer. Pre-training via paraphrasing. In *Advances in Neural Information Processing Systems (NeurIPS)*, 2020.

L. Yu, H. Chen, S. I. Wang, Y. Artzi, and T. Lei. Interactive classification by asking informative questions. In *Association for Computational Linguistics (ACL)*, 2019.

T. Lei, Y. Zhang, S. I. Wang, H. Dai, and Y. Artzi. Simple recurrent units for highly parallelizable recurrence. In *Empirical Methods in Natural Language Processing (EMNLP)*, 2018.

S. I. Wang. *Learning adaptive language interfaces through interaction*. PhD thesis, Stanford University, 2017.

S. I. Wang, S. Ginn, P. Liang, and C. D. Manning. Naturalizing a programming language via interactive learning. In *Association for Computational Linguistics (ACL)*, 2017.

Z. Xie, S. I. Wang, J. Li, D. Lévy, A. Nie, D. Jurafsky, and A. Y. Ng. Data noising as smoothing in neural network language models. In *International Conference on Learning Representations (ICLR)*, 2017.

S. I. Wang, P. Liang, and C. Manning. Learning language games through interaction. In *Association for Computational Linguistics (ACL)*, 2016.

S. I. Wang, A. Chaganty, and P. Liang. Estimating mixture models via mixture of polynomials. In *Advances in Neural Information Processing Systems (NIPS)*, 2015.

R. Frostig and S. I. Wang. A sub-constant improvement in approximating the positive semidefinite Grothendieck problem. *arXiv preprint arXiv:1408.2270*, 2014.

S. Wager, W. Fithian, S. I. Wang, and P. Liang. Altitude training: Strong bounds for single-layer dropout. In *Advances in Neural Information Processing Systems (NIPS)*, 2014.

R. Frostig, S. I. Wang, P. Liang, and C. D. Manning. Simple MAP inference via low-rank relaxations. In *Advances in Neural Information Processing Systems (NIPS)*, 2014.

S. I. Wang, R. Frostig, P. Liang, and C. D. Manning. Relaxations for inference in restricted Boltzmann machines. In *International Conference on Learning Representations Workshop (ICLR)*, 2014.

S. Green, S. I. Wang, J. Chuang, J. Heer, , and C. D. Manning. Human effort and machine learnability in computer aided translation. In *Empirical Methods in Natural Language Processing (EMNLP)*, 2014.

S. I. Wang and C. D. Manning. Fast dropout training. In *International Conference on Machine Learning (ICML)*, pages 118–126, 2013.

S. I. Wang, M. Wang, S. Wager, P. Liang, and C. Manning. Feature noising for log-linear structured prediction. In *Empirical Methods in Natural Language Processing (EMNLP)*, 2013.

S. Wager, S. I. Wang, and P. Liang. Dropout training as adaptive regularization. In *Advances in Neural Information Processing Systems (NIPS)*, 2013.

S. Green, S. I. Wang, D. Cer, and C. D. Manning. Fast and adaptive online training of feature-rich translation models. In *Association for Computational Linguistics (ACL)*, 2013a.

S. Green, D. Cer, K. Reschke, R. Voigt, J. Bauer, S. I. Wang, N. Silveira, J. Neidert, and C. D. Manning. Feature-rich phrase-based translation: Stanford University's submission to the WMT 2013 translation task. In *ACL 2013 Eighth Workshop on Statistical Machine Translation*, 2013b.

S. I. Wang and C. Manning. Baselines and bigrams: Simple, good sentiment and text classification. In *Association for Computational Linguistics (ACL)*, 2012.

G. E. Hinton, A. Krizhevsky, and S. I. Wang. Object recognition using capsules. In *International Conference on Artificial Neural Networks (ICANN)*, 2011.

S. I. Wang. Learning to extract parameterized features by predicting transformed images. Master's thesis, University of Toronto, 2011.