Curriculum Vitae

Fei Sha

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Education

Ph.D

Computer and Information Science (2007)
University of Pennsylvania (Philadelphia, PA)

Thesis: Large margin training of acoustic models for speech recognition

Thesis advisor: Prof. Lawrence K. Saul

Thesis committee:

- Prof. Fernando C. N. Pereira (Chair)
- Prof. Sam Roweis (External member)
- Prof. Mitch Marcus
- Prof. Daniel D. Lee

M.Sc.

Biomedical Engineering (1993)
Southeast University (Nanjing, China)

Thesis: A mathematical analysis of nonlinear dynamics in coupled neural oscillators

Thesis advisor: Prof. Yu Wei

B.Sc

Biomedical Engineering (1990)
Southeast University (Nanjing, China)

Thesis: A hybrid neural network architecture of Hopfield associative memory and back-propagation nets

Thesis advisor: Prof. Qiang Gan and Prof. Yu Wei

Academic Appointments

Jan 2025 – present

Associate
School of Engineering and Applied Sciences
Harvard University
Cambridge, MA

Sept 2021 – Aug 2023

Adjunct Professor
Dept. of Computer Science
University of Southern California
Los Angeles, California

May 2020 – Sept 2021

Professor
Zohrab A. Kaprielian Fellow in Engineering
Dept. of Computer Science
University of Southern California
Los Angeles, California

Jan. 17 – May 2020

Associate Professor
Zohrab A. Kaprielian Fellow in Engineering
Founding Director, Center for Data, Algorithms, and Systems for Health (DASH)
Dept. of Computer Science
University of Southern California
Los Angeles, California

Jan. 16 – Dec. 16

Associate Professor
Samueli Fellow
Dept. of Computer Science
University of California
Los Angeles, California

Apr., 13 – Dec., 15

Jack Munushian Early Career Chair
Dept. of Computer Science
University of Southern California
Los Angeles, California

Mar., 14 – Dec., 15

Associate Professor (with tenure)
Dept. of Computer Science
University of Southern California
Los Angeles, California

Aug., 08 – Mar. 14

Assistant Professor
Dept. of Computer Science
University of Southern California
Los Angeles, California

Aug., 06 – Jul., 07

Postdoc Research Associate
Computer Science Division
University of California
Berkeley, California

Mentors: Prof. Michael I. Jordan, and Prof. Stuart Russell

Jan., 02 – Jul., 06

Graduate Research Assistant
Dept. of Computer and Information Science
University of Pennsylvania
Philadelphia, PA

Advisors: Prof. Fernando C. N. Pereira, and Prof. Lawrence K. Saul

Non-Academic Professional Experiences

Oct 2025 – present

AI Researcher
Meta

May 2019 – Oct 2025

Research Scientist
Google
(on leave from USC between May 2019 to Sept 2021)

May 2018 – May 2019

Director of Content Machine Learning
Netflix
(on leave from USC)

Sept. 2017 – May 2018

Research Consultant to Facebook's Applied Machine Learning

Sept. 2016 – Dec. 2016

Visiting Faculty
Google

Aug., 2007 – Jul., 2008

Research Scientist
Yahoo! Research
701 First Av.
Sunnyvale, California 94089

Oct., 1996 – Dec., 2001

Senior System Analyst
MossRehab Hospital
Philadelphia, PA

Awards and Honors

2016 Google Research Award

2013 Sloan Research Fellow
Alfred P. Sloan Foundation

2012 Young Investigator Award
Army Research Offce (ARO)

2010 Computer Science Study Panel
DARPA

2009 Google Research Award

2007 Finalist of the Best Student Paper
International Conference on Acoustics, Signal and Speech Processing (ICASSP)
Co-author: Lawrence K. Saul

2006 Outstanding Student Paper
20^{th} Annual Conference on Neural Information Processing Systems (NIPS)
Co-author: Lawrence K. Saul

2004 Outstanding Student Paper
21^{th} International Conference on Machine Learning (ICML)
Co-authors: Kilian Q. Weinberger and Lawrence K. Saul

Teaching Experience

U. of California (Los Angeles)

CS269 Advanced Topics in Machine Learning
Spring 2016

U. of Southern California

CSCI599 Special Topics (Advanced Machine Learning)
Spring 2017, Spring 2015

CSCI567 Machine Learning
Fall2017, Fall 2014, Fall 2013, Fall 2012, Fall 2011, Fall 2010, and Fall 2009

CSCI573 Probabilistic Reasoning (Probabilistic Graphical Models)
Spring 2014, Spring 2012, and Spring 2010

CS599/CSCI699 Selected Topics in Machine Learning
Spring 2017, Spring 2009

U. of California (Berkeley)

Guest lecturer for CS 294 Practical Machine Learning
Fall 2007, Fall 2006

U. of Pennsylvania

TA for CS101 Programming Languages and Techniques (Spring 2003)

TA for CS520 Introduction to Artificial Intelligence (Fall 2002)

University Service

Univeristy School Committee Services

Viterbi Schoo of Engineering Research Committee, 2017-2018

Departmental Committee Services

CS Faculty Search Committee, 2017-2018

CS Faculty Merit Review Committee, 2016-2017

CS PhD Curriculum Standing Committee, 2015

CS Research Assistant Professor Promotion Committee, 2015

CS Junior Faculty (Prof. Anonymous) Mid-term Review Committee, 2015

CS PhD Admission and Fellowship Committee (Chair), 2013

CS PhD Program Reboot Committee, 2013

CS Fellowship and Graduate Admission Committee, 2013-2014

CS Faculty Search Committee, 2010-2011, 2012-2013, 2017-2018

CS Colloquium Co-Organizers 2008-2009, 2009-2010

Faculty Evaluation Committee 2009, 2010, 2017

Ph.D Admission Committee 2008-2012

Professional Service

Program co-chair

ICLR (2025)

Program co-chair

AAAI (2020)

Finance/Sponsorship co-chair

AISTATS (2021)

International Conference on Machine Learning (2019)

Workshop co-chair

International Conference on Machine Learning (2017, 2016)

Publication co-chair

International Conference on Machine Learning (2013, 2014)

Best Paper Award Committee

NeurIPS 2018

AAAI2019, AAAI 2021

Senior Area Chair

Neural Information Processing Systems (NeurIPS)
2024, 2023, 2020, 2019, 2018

International Conference on Learning Representation (ICLR)
2024

International Joint Conference on AI (IJCAI)
2021

International Conference on Machine Learning (ICML)
2024, 2023, 2022, 2021

Area Chair

Computer Vision and Pattern Recognition (CVPR)
2023

International Conference on Learning Representation (ICLR)
2021

Association of Computational Linguistics (ACL)
2019

American Association of Artificial Intelligence (AAAI)
2019

Computer Vision and Pattern Recognition (CVPR)
2019

European Conference on Computer Vision (ECCV)
2018

International Conference on Computer Vision (ICCV)
2018, 2017

International Conference for Machine Learning (ICML)
2021, 2016, 2015, 2014, 2013, 2011, 2009

Neural Information Processing Systems
2017, 2016, 2012, 2008, 2007

AISTATS
2018, 2013

NAACL Human Language Technologies
2012

Associate Editor

Journal of Machine Learning Research
2024 – present

PNAS Nexus
2023 – 2024

IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)
2014 – present

Journal of Artificial Intelligence Research
2013 — 2018

Editorial Board

Journal of Artificial Intelligence Research
2011 — 2014

Journal of Machine Learning Research
2009 – present

Machine Learning Journal
2010 – 2013

Workshop Co-organizer

ICCV 2013 Workshop on Visual Domain Adaptation and Dataset Bias (Sydney, Australia)

AAAI 2013 Spring Symposium on Lifelong Learning (Palo Alto, CA)

NIPS 2010 Workshop on Challenges for Data Visualization (Whistler, Canada)

NIPS Workshop on Statistical Learning for Visual Analytics (Whistler, Canada)

NIPS 2007 Workshop on Machine Learning and Systems (Whistler, Canada)

Recent Program Committees and Review Services

ECCV 2014 Workshop on Transferring and Adapting Source Knowledge in Computer Vision (TASK-CV)

IEEE BigData 2013

EMNLP 2012

ICML 2012

AISTATS 2011

IJCAI 2011

AAAI 2010 Manifold Learning Symposium

ICDM Workshop on Optimization Based Methods for Emerging Data Mining Problems (OEDM'09), Miami, Florida

SIGMETRICS Workshop Learning for Networking 2009, Seattle, Washington

12^{th} International Conference on Artificial Intelligence and Statistics (AISTATS 2009), Clearwater Beach, Florida

Others

NSF Panelists (2009 - present)

Reviewer for Foundation and Trends in Machine Learning, Neural Computation, IEEE Transaction journals, J. of ACM, NIPS, AISTATS and ICML conferences and etc.

Publication

arXiv public author identifier: http://arxiv.org/a/sha_f_1
DBLP https://dblp.uni-trier.de/pers/s/Sha:Fei.html
Google Scholar https://scholar.google.com/citations?user=8rttV7kAAAAJ&hl=en
Semantic Scholar https://www.semanticscholar.org/author/Fei-Sha/145003258

Book chapters

[B1] Chao-Yeh Chen, Dinesh Jayaraman, Fei Sha, and Kristen Grauman. Divide, share, and conquer: Multi-task attribute learning with selective sharing. In Rogerio Schmidt Feris, Christoph Lampert, and Devi Parikh, editors, *Visual Attributes*, pages 49–85. Springer International Publishing, Cham, 2017.

[B2] Boqing Gong, Kristen Grauman, and Fei Sha. Geodesic flow kernel and landmarks: Kernel methods for unsupervised domain adaptation. In Gabriela Csurka, editor, *Domain Adaptation in Computer Vision Applications.*, Advances in Computer Vision and Pattern Recognition, pages 59–79. Springer, 2017.

[B3] Fei Sha and Lawrence K. Saul. Large margin training of acoustic models for phoneme classification and recognition. In Joseph Keshet and Samy Bengio, editors, *Large Margin and Kernel Approaches to Speech and Speaker Recognition*, chapter 8. Wiley & Sons, 2008.

[B4] Lawrence K. Saul, Kilian Q. Weinberger, Fei Sha, Jihun Hamm, and Daniel D. Lee. Spectral methods for dimensionality reduction. In Olivier Chapelle, Bernhard Schölkopf, and Alexander Zien, editors, *Semi-supervised Learning*, chapter 16, pages 293–308. MIT Press, Cambridge, MA, 2006.

Journal

[J1] S. Stamatelopoulos, M. Wang, I. Lopez-Gomez, L. Zepeda-Nunez, Z. Y. Wan, R. Carver, F. Sha, and T. P. Sapsis. Dysco: Dynamically consistent data-driven downscaling of extremes in climate projections. 2026.

[J2] Linlu Qiu, Fei Sha, Kelsey Allen, Yoon Kim, Tal Linzen, and Sjoerd van Steenkiste. Bayesian teaching enables probabilistic reasoning in large language models. *Nature Communications*, 17:17, 2026.

[J3] Zhong Yi Wan, Ignacio Lopez-Gomez, Robert Carver, Tapio Schneider, John Anderson, Fei Sha, and Leonardo Zepeda-Núñez. Regional climate risk assessment from climate models using probabilistic machine learning. *Nature Machine Intelligence*, 2026.

[J4] Bogdan Raonić, Roberto Molinaro, Samuel Lanthaler, Tobias Rohner, Victor Armegioiu, Stephan Simonis, Dana Grund, Yannick Ramic, Zhong Yi Wan, Fei Sha, Siddhartha Mishra, and Leonardo Zepeda-Núñez. Generative AI for efficient statistical computation of fluids. *Nature Communications*, 2026.

[J5] Benedikt Barthel Sorensen, Leonardo Zepeda-Núñez, Ignacio Lopez-Gomez, Zhong Y. Wan, Rob Carver, Fei Sha, and Themistoklis P. Sapsis. A probabilistic framework for learning non-intrusive corrections to long-time climate simulations from short-time training data. *Journal of Advances in Modeling Earth Systems*, 18(1):e2024MS004755, 2026.

[J6] Ignacio Lopez-Gomez, Zhong Yi Wan, Leonardo Zepeda-Núnez, Tapio Schneider, John Anderson, and Fei Sha. Dynamical-generative downscaling of climate model ensembles. *PNAS*, 122(17), 2025.

[J7] Lizao Li, Robert Carver, Ignacio Lopez-Gomez, Fei Sha, and John Anderson. Generative emulation of weather forecast ensembles with diffusion models. *Science Advances*, 10(13), 2024.

[J8] Stephan Rasp, Stephan Hoyer, Alexander Merose, Ian Langmore, Peter Battaglia, Tyler Russell, Alvaro Sanchez-Gonzalez, Vivian Yang, Rob Carver, Shreya Agrawal, Matthew Chantry, Zied Ben Bouallegue, Peter Dueben, Carla Bromberg, Jared Sisk, Luke Barrington, Aaron Bell, and Fei Sha. Weatherbench 2: A benchmark for the next generation of data-driven global weather models. *Journal of Advances in Modeling Earth Systems*, 16(6), 2024.

[J9] Hexiang Hu, Ozan Sener, Fei Sha, and Vladlen Koltun. Drinking from a firehose: Continual learning with web-scale natural language. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 45, 2022.

[J10] Rishi R Rawat, Itzel Ortega, Preeyam Roy, Fei Sha, Darryl Shibata, Daniel Ruderman, and David B Agus. Deep learned tissue "fingerprints" classify breast cancers by ER/PR/Her2 status from H&E images. *Scientific reports*, 10(1):7275, 29 April 2020.

[J11] Soravit Changpinyo, Wei-Lun Chao, Boqing Gong, and Fei Sha. Classifier and exemplar synthesis for zero-shot learning. *Int. J. Comput. Vis.*, 128(1):166–201, 2020.

[J12] A. May, A.B. Garakani, Z. Lu, D. Guo, K. Liu, A. Bellet, L. Fan, M. Collins, D. Hsu, B. Kingsbury, M. Picheny, and F. Sha. Kernel approximation methods for speech recognition. *J. Mach. Learn. Res.*, 20:59:1–59:36, 2019.

[J13] Lindsay Bassman, Pankaj Rajak, Rajiv K. Kalia, Aiichiro Nakano, Fei Sha, Jifeng Sun, David J. Singh, Muratahan Aykol, Patrick Huck, Kristin Persson, and Priya Vashishta. Active learning for accelerated design of layered materials. *npj Computational Materials*, 4(1):74, 2018.

[J14] Lindsay Bassman, Pankaj Rajak, Rajiv K. Kalia, Aiichiro Nakano, Fei Sha, Muratahan Aykol, Patrick Huck, Kristin Persson, Jifeng Sun, David J. Singh, and et al. Efficient

discovery of optimal n-layered tmdc hetero-structures. *MRS Advances*, pages 1–6, 2018.

[J15] Kun Fu, Junqi Jin, Runpeng Cui, Fei Sha, and Changshui Zhang. Aligning where to see and what to tell: Image captioning with region-based attention and scene-specific contexts. *IEEE Trans. on PAMI*, 2017.

[J16] Christian Potthast, Andreas Breitenmoser, Fei Sha, and Gaurav S. Sukhatme. Active multi-view object recognition: A unifying view on online feature selection and view planning. *Robotics and Autonomous Systems*, 84:31–47, 2016.

[J17] Minmin Chen, Kilian Weinberger, Zhixiang Xu, and Fei Sha. Marginalizing stacked linear denoising autoencoders. *J. of Mach. Learn. Res.*, 2015.

[J18] Boqing Gong, Kristen Grauman, and Fei Sha. Learning kernels for unsupervised domain adaptation with applications to visual object recognition. *Int. J. of Computer Vision*, 109:3–27, 2014.

[J19] Junping Zhang, Ben Tan, Fei Sha, and Li He. Predicting pedestrian counts in crowded scenes with rich and high-dimensional features. *IEEE Trans. on Intelligent Transportation Systems*, 12(4):1037–1046, 2011.

[J20] Chih-chieh Cheng, Fei Sha, and Lawrence K. Saul. Online learning and acoustic feature adaptation in large margin hidden Markov models. *IEEE J. of Special Topics in Signal Processing*, 4(6):926–942, 2010.

[J21] Sriram Sankararaman, Fei Sha, Jack F. Kirsch, Michael I. Jordan, and Kimmen Sjölander. Active site prediction using evolutionary and structural information. *Bioinformatics*, 26(5):617–624, 2010.

[J22] Fei Sha, Yuanqing Lin, Lawrence K. Saul, and Daniel D. Lee. Multiplicative updates for nonnegative quadratic programming. *Neural Computation*, 19(8):2004–2031, 2007.

Conferences

[C1] Jin Peng Zhou, Séb Arnold, Nan Ding, Kilian Q. Weinberger, Nan Hua, and Fei Sha. Graders should cheat: Privileged information enables expert-level automated evaluations. In ..., editor, *Proceedings of the 2025 Conference on Empirical Methods in Natural Language Processing*, pages 16572–16590, Suzhou, China, November 2025. Association for Computational Linguistics.

[C2] Xuchan Bao, Judith Yue Li, Zhong Yi Wan, Kun Su, Timo Denk, Joonseok Lee, Dima Kuzmin, and Fei Sha. Diff4steer: Steerable diffusion prior for generative music retrieval with semantic guidance. In *ICASSP 2025 - 2025 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pages 1–5, 2025.

[C3] Yair Schiff, Zhong Yi Wan, Jeffrey B. Parker, Stephan Hoyer, Volodymyr Kuleshov, Fei Sha, and Leonardo Zepeda-Nez. Dyslim: Dynamics stable learning by invariant measure for chaotic systems. In *Proc. of ICML*, 2024.

[C4] Tiwalayo Eisape, Michael Tessler, Ishita Dasgupta, Fei Sha, Sjoerd Steenkiste, and Tal Linzen. A systematic comparison of syllogistic reasoning in humans and language models. In Kevin Duh, Helena Gomez, and Steven Bethard, editors, *Proceedings of the 2024 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (Volume 1: Long Papers)*, pages 8425–8444, Mexico City, Mexico, June 2024. Association for Computational Linguistics.

[C5] Jackson Petty, Sjoerd Steenkiste, Ishita Dasgupta, Fei Sha, Dan Garrette, and Tal Linzen. The impact of depth on compositional generalization in transformer language models. In Kevin Duh, Helena Gomez, and Steven Bethard, editors, *Proceedings of the 2024 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (Volume 1: Long Papers)*, pages 7239–7252, Mexico City, Mexico, June 2024. Association for Computational Linguistics.

[C6] Kun Su, Judith Yue Li, Qingqing Huang, Dima Kuzmin, Joonseok Lee, Chris Donahue, Fei Sha, Aren Jansen, Yu Wang, Mauro Verzetti, and Timo Denk. V2meow: Meowing to the visual beat via video-to-music generation. In *Proceedings of the AAAI Conference on Artificial Intelligence*, volume 38, pages 4952–4960, Mar. 2024.

[C7] Anudhyan Boral, Zhong Yi Wan, Leonardo Zepeda-Núñez, James Lottes, Qing Wang, Yi-Fan Chen, John Anderson, and Fei Sha. Neural ideal large eddy simulation: Modeling turbulence with neural stochastic differential equations. In A. Oh, T. Naumann, A. Globerson, K. Saenko, M. Hardt, and S. Levine, editors, *Advances in Neural Information Processing Systems*, volume 36, pages 69270–69283. Curran Associates, Inc., 2023.

[C8] Zhong Yi Wan, Ricardo Baptista, Anudhyan Boral, Yi-Fan Chen, John Anderson, Fei Sha, and Leonardo Zepeda-Núñez. Debias coarsely, sample conditionally: Statistical downscaling through optimal transport and probabilistic diffusion models. In A. Oh, T. Naumann, A. Globerson, K. Saenko, M. Hardt, and S. Levine, editors, *Advances in Neural Information Processing Systems*, volume 36, pages 47749–47763. Curran Associates, Inc., 2023.

[C9] Thomas Mensink, Jasper Uijlings, Lluis Castrejon, Arushi Goel, Felipe Cadar, Howard Zhou, Fei Sha, André Araujo, and Vittorio Ferrari. Encyclopedic VQA: Visual questions about detailed properties of fine-grained categories. In *Proc. of ICCV*, 2023.

[C10] Marc Finzi, Anudhyan Boral, Andrew Gordon Wilson, Fei Sha, and Leonardo Zepeda-Nú nez. User-defined event sampling and uncertainty quantification in diffusion models for physical dynamical systems. In *ICML*, 2023.

[C11] Michiel de Jong, Yury Zemlyanskiy, Nicholas FitzGerald, Joshua Ainslie, Sumit Sanghai, Fei Sha, and William Cohen. Pre-computed memory or on-the-fly encoding? a hybrid approach to retrieval augmentation makes the most of your compute. In *ICML*, 2023.

[C12] Michiel de Jong, Yury Zemlyanskiy, Joshua Ainslie, Nicholas FitzGerald, Sumit Sanghai, Fei Sha, and William Cohen. FiDO: Fusion-in-decoder optimized for stronger performance and faster inference. In *Findings of ACL*, 2023.

[C13] Zhong Yi Wan, Leonardo Zepeda-Nú nez, Anudhyan Boral, and Fei Sha. Evolve smoothly, fit consistently: Learning smooth latent dynamics for advection-dominated systems. In *ICLR*, 2023.

[C14] Linlu Qiu, Peter Shaw, Panupong Pasupat, Tianze Shi, Jonathan Herzig, Emily Pitler, Fei Sha, and Kristina Toutanova. Evaluating the impact of model scale for compositional generalization in semantic parsing. In *EMNLP*, 2022.

[C15] Yury Zemlyanskiy, Michiel de Jong, Joshua Ainslie, Panupong Pasupat, Peter Shaw, Linlu Qiu, Sumit Sanghai, and Fei Sha. Generate-and-retrieve: use your predictions to improve retrieval for semantic parsing. In *COLING*, 2022.

[C16] Shariq Iqbal, Robby Costales, and Fei Sha. ALMA: Hierarchical learning for composite multi-agent tasks. In *NeurIPS*, 2022.

[C17] Michiel de Jong, Yury Zemlyanskiy, Nicholas FitzGerald, Fei Sha, and William Cohen. Mention memory: incorporating textual knowledge into transformers through entity mention attention. In *ICLR*, 2022.

[C18] Robby Costales, Shariq Iqbal, and Fei Sha. Possibility before utility: Learning and using hierarchical affordances, 2022.

[C19] Sebastien M. R. Arnold, Pierre L'Ecuyer, Liyu Chen, Yi fan Chen, and Fei Sha. Policy learning and evaluation with randomized quasi-monte carlo. In *AISTATS*, 202.

[C20] Linlu Qiu, Hexiang Hu, Bowen Zhang, Pete Shaw, and Fei Sha. Systematic generalization on gSCAN: what is nearly solved and what is next? In *Proc. of EMNLP*, 2021.

[C21] Bowen Zhang, Hexiang Hu, Linlu Qiu, , Pete Shaw, and Fei Sha. Visually grounded concept composition. In *Findings of EMNLP*, 2021.

[C22] Shariq Iqbal, Christian A. Schroeder de Witt, Bei Peng, Wendelin Böhmer, Shimon Whiteson, and Fei Sha. Randomized entity-wise factorization for multi-agent reinforcement learning. In *Proc. of Intl. Conf. on Machine Learning (ICML)*, 2021.

[C23] Sayali Kulkarn, Sheide Chammas, Wan Zhu, Fei Sha, and Eugene Ie. CoMSum and SIBERT: A dataset and neural model for query-based multi-document summarization. In *Proceedings of Intl. Conf. on Document Analysis and Recognition*, 2021.

[C24] Yury Zemlyanskiy, Sudeep Gandhe, Ruining He, Bhargav Kanagal, Anirudh Ravula, Juraj Gottweis, Fei Sha, and Ilya Eckstein. DOCENT: Learning self-supervised entity representations from large document collections. In *Proceedings of the 16th Conference of the European Chapter of the Association for Computational Linguistics: Main Volume*, pages 2540–2549, Online, April 2021. Association for Computational Linguistics.

[C25] Yury Zemlyanskiy, Joshua Ainslie, Michiel de Jong, Philip Pham, Ilya Eckstein, and Fei Sha. ReadTwice: Reading very large documents with memories. In *Proceedings of the 2021 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies*, pages 5189–5195, Online, June 2021. Association for Computational Linguistics.

[C26] Sbastien M. R. Arnold, Shariq Iqbal, and Fei Sha. When maml can adapt fast and how to assist when it cannot. In *AISTATS*, 2021.

[C27] Bowen Zhang, Hexiang Hu, Vihan Jain, Eugene Ie, and Fei Sha. Learning to represent image and text with denotation graph. In *Proceedings of the 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, pages 823–839, Online, November 2020. Association for Computational Linguistics.

[C28] Wang Zhu, Hexiang Hu, Jiacheng Chen, Zhiwei Deng, Vihan Jain, Eugene Ie, and Fei Sha. Babywalk: Going farther in vision-and-language navigation by taking baby steps. In Dan Jurafsky, Joyce Chai, Natalie Schluter, and Joel R. Tetreault, editors, *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics, ACL 2020, Online, July 5-10, 2020*, pages 2539–2556. Association for Computational Linguistics, 2020.

[C29] Han-Jia Ye, Hexiang Hu, De-Chuan Zhan, and Fei Sha. Few-shot learning via embedding adaptation with set-to-set functions. In *The IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, June 2020.

[C30] Yiming Yan, Melissa Ailem, and Fei Sha. Amortized inference of variational bounds for learning noisy-or. In *Proc. of AISTATS*, 2000.

[C31] Zhiyun Lu, Liyu Chen, Chao-Kai Chiang, and Fei Sha. Hyper-parameter tuning under a budget constraint. In Sarit Kraus, editor, *Proceedings of the Twenty-Eighth International Joint Conference on Artificial Intelligence, IJCAI 2019, Macao, China, August 10-16, 2019*, pages 5744–5750. ijcai.org, 2019.

[C32] Shariq Iqbal and Fei Sha. Actor-attention-critic for multi-agent reinforcement learning. In Kamalika Chaudhuri and Ruslan Salakhutdinov, editors, *Proceedings of the 36th International Conference on Machine Learning, ICML 2019, 9-15 June 2019, Long Beach, California, USA*, volume 97 of *Proceedings of Machine Learning Research*, pages 2961–2970. PMLR, 2019.

[C33] Jin Joo Lee, Fei Sha, and Cynthia Breazeal. A bayesian theory of mind approach to nonverbal communication. In *14th ACM/IEEE International Conference on Human-Robot Interaction, HRI 2019, Daegu, South Korea, March 11-14, 2019*, pages 487–496. IEEE, 2019.

[C34] Hexiang Hu, Liyu Chen, and Fei Sha. Synthesize policies for transfer and adaptation across environments and tasks. In *NIPS*, 2018.

[C35] Melisa Ailem, Bowen Zhang, Aur'elien Bellet, Pascal Denis, and Fei Sha. A probabilistic model for joint learning of word embeddings from texts and images. In *Proc. of Empirical Methods in Natural Language Processing (EMNLP)*, 2018.

[C36] Yury Zemlyanskiy and Fei Sha. Aiming to know you better perhaps makes me a more engaging dialogue partner. In *Proc. of Computational Natural Language Learning (CoNLL)*, 2018.

[C37] Ke Zhang, Kristen Grauman, and Fei Sha. Retrospective encoders for video summarization. In *Proc. of European Conf on Computer Vision (ECCV)*, 2018.

[C38] Bowen Zhang, Hexiang Hu, and Fei Sha. Cross-modal and hierarchical modeling of video and text. In *Proc. of European Conf on Computer Vision (ECCV)*, 2018.

[C39] Soravit Chanpingyo and Fei Sha. Can you help me? a study of multi-task learning for sequence tagging tasks. In *Proc. of Computational Linguistics (COLING)*, 2018.

[C40] J. Kremer, F. Sha, and C. Igel. Robust active label correction. In *Proceedings of the 21st International Conference on Artificial Intelligence and Statistics*, volume 84 of *Proceedings of Machine Learning Research*. PMLR, 2018.

[C41] Hexiang Hu, Wei-Lun Chao, and Fei Sha. Learning answer embeddings for visual question answering. In *Proc. of CVPR*, 2018.

[C42] Wei-Lun Chao, Hexiang Hu, and Fei Sha. Cross-dataset adaptation for visual question answering. In *Proc. of CVPR*, 2018.

[C43] Wei lun Chao, Hexiang Hu, and Fei Sha. Being negative but constructively: Lessons learnt from creating better visual question answering datasets. In *Proc. of North American Association of Computational Linguistics (NAACL)*, 2018.

[C44] Maximilian Alber, Pieter-Jan Kindermans, Kristof Schütt, Klaus-Robert Müller, and Fei Sha. An empirical study on the properties of random bases for kernel methods. In *Advances in Neural Information Processing Systems 30: Annual Conference on Neural Information Processing Systems, Long Beach, CA, USA*, pages 2760–2771, 2017.

[C45] Soravit Changpinyo, Wei-Lun Chao, and Fei Sha. Predicting visual exemplars of unseen classes for zero-shot learning. In *Proc. of International Conference on Computer Vision (ICCV)*, 2017.

[C46] Hexiang Hu, Shiyi Lan, Yuning Jiang, Zhimin Cao, and Fei Sha. Fastmask: Segment multi-scale object candidates in one shot. In *2017 IEEE Conference on Computer Vision and Pattern Recognition, CVPR, Honolulu*, pages 2280–2288, 2017.

[C47] Chenxi Liu, Junhua Mao, Fei Sha, and Alan Yuille. Attention correctness: Machine perception vs human annotations in neural image captioning. In *Proc. of AAAI*, 2017.

[C48] Gao Huang, Chuan Guo, Matt J Kusner, Yu Sun, Fei Sha, and Kilian Q Weinberger. Supervised word mover's distance. In *NIPS*, 2016.

[C49] Ke Zhang, Weilun Chao, Fei Sha, and Kristen Grauman. Video summarization with long short-term memory. In *Proc. of ECCV*, 2016.

[C50] Weilun Chao, Soravit Changpinyo, Boqing Gong, and Fei Sha. An empirical study and analysis of generalized zero-shot learning for object recognition in the wild. In *Proc. of ECCV*, 2016.

[C51] Soravit Changpinyo, Weilun Chao, Boqing Gong, and Fei Sha. Synthesized classifiers for zero-shot learning. In *Proc. of CVPR*, 2016.

[C52] Ke Zhang, Weilun Chao, Fei Sha, and Kristen Grauman. Summary transfer: Exemplar-based subset selection for video summarization. In *Proc. of CVPR*, 2016.

[C53] Yuan Shi, Wenzhe Li, and Fei Sha. Ordinal metric learning. In *Proc. of AAAI*, 2016.

[C54] Zhiyun Lu, Dong Guo, Alireza Bagheri Garakani, Kuan Liu, Avner May, Aurélien Bellet, Linxi Fan, Michael Collins, Brian Kingsbury, Michael Picheny, and Fei Sha. A comparison between deep neural nets and kernel acoustic models for speech recognition. In *Proc. of ICASSP*, 2016.

[C55] Weilun Chao, Boqing Gong, Kristen Grauman, and Fei Sha. Large-margin determinantal point processes. In *Proc. of Uncertainty in AI (UAI)*, 2015.

[C56] Weilun Chao, Justin Solomon, Dominik L. Michels, and Fei Sha. Exponential integration for Hamiltonian Monte Carlo. In *Proc. of Int. Conf. on Mach. Learn.*, 2015.

[C57] Kuan Liu, Aurélien Bellet, and Fei Sha. Similarity learning for high-dimensional sparse data. In *Proc. of Artificial Intelligence and Statistics (AISTATS)*, 2015.

[C58] Aurélien Bellet, Yingyu Liang, Alireza Bagheri Garakani, Nina Balcon, and Fei Sha. Distributed Frank-Wolfe algorithm: A unified framework for communication-efficient sparse learning. In *Proc. of SIAM Intl. Conf. on Data Mining (SDM)*, 2015.

[C59] Boqing Gong, Weilun Chao, Kristen Grauman, and Fei Sha. Diverse sequential subset selection for supervised video summarization. In *Proc. of Annual Conference on Neural Information Processing Systems (NIPS)*, 2014.

[C60] Yuan Shi, Aurelien Bellet, and Fei Sha. Sparse compositional metric learning. In *Proceedings of Twenty-Eighth AAAI Conference (AAAI-14)*, 2014.

[C61] Minmin Chen, Kilian Weinberger, Fei Sha, and Yoshua Bengio. Marginalized denoising auto-encoders for nonlinear representations. In *Proceedings of Int. Conf. on Machine Learning (ICML)*, 2014.

[C62] Jun Wang, Ke Sun, Fei Sha, Stephane Marchand-Maillet, and Alexandros Kalousis. Two-stage metric learning. In *Proc. of Int. Conf. on Machine Learning (ICML)*, 2014.

[C63] Dinesh Jayaraman, Fei Sha, and Kristen Grauman. Decorrelating semantic visual attributes by resisting the urge to share. In *Proc. IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, Columbus, OH, 2014.

[C64] Zi Wang and Fei Sha. Discriminative non-negative matrix factorization for single-channel speech separation. In *Proc. Int. Conf. on Acoustics, Speech and Signal Processing (ICASSP)*, Florence, Italy, 2014.

[C65] Greg Ver Steeg, Aram Galstyan, Fei Sha, and Simon DeDeo. Demystifying information-theoretic clustering. In *Proc. of Int. Conf. on Machine Learning (ICML)*, Beijing, 2014.

[C66] Boqing Gong, Kristen Grauman, and Fei Sha. Reshaping visual datasets for domain adaptation. In *Proc. of Annual Conference on Neural Information Processing Systems (NIPS)*, Lake Tahoe, CA, 2013.

[C67] Soravit Changpinyo, Kuan Liu, and Fei Sha. Similarity component analysis. In *Proc. of Annual Conference on Neural Information Processing Systems (NIPS)*, 2013.

[C68] Sungju Hwang, Kristen Grauman, and Fei Sha. Analogy-preserving semantic embedding for visual object categorization. In *Proceedings of ICML*, Atlanta, GA, 2013.

[C69] Jaechul Kim, Ce Liu, Fei Sha, and Kristen Grauman. Deformable spatial pyramid matching for fast dense correspondences. In *CVPR*, Portland, OR, 2013.

[C70] Boqing Gong, Kristen Grauman, and Fei Sha. Connecting the dots with landmarks: Discriminatively learning domain-invariant features for unsupervised domain adaptation. In *Proceedings of ICML*, Atlanta, GA, 2013.

[C71] Dingchao Lu and Fei Sha. Likability prediction with Gaussian process. In *Proceedings of Interspeech*, Portland, OR, 2012.

[C72] Dor Kedem, Stephen Tyree, Kilian Weinberger, Fei Sha, and Gert Lanckriet. Nonlinear metric learning. In *Proceedings of Annual Conference on Neural Information Processing Systems (NIPS)*, Lake Tahoe, CA, 2012.

[C73] Sungju Hwang, Kristen Grauman, and Fei Sha. Semantic kernel forests from multiple taxonomies. In *Proceedings of Annual Conference on Neural Information Processing Systems (NIPS)*, Lake Tahoe, CA, 2012.

[C74] Zhixing Xu, Minmin Chen, Kilian Weinberger, and Fei Sha. From sBoW to dCoT marginalized encoders for text representation. In *Proceedings of ACM Conf. on Information and Knowledge Management (CIKM)*, Maui, HI, 2012.

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[C76] Minmin Chen, Zhixing Xu, Kilian Weinberger, and Fei Sha. Marginalized denoising autoencoders for domain adaptation. In *Proceedings of Intl. Conf. on Machine Learning (ICML)*, Edinburgh, 2012.

[C77] Yuan Shi and Fei Sha. Information-theoretical learning of discriminative clusters for unsupervised domain adaptation. In *Proceedings of Intl. Conf. on Machine Learning (ICML)*, Edinburgh, 2012.

[C78] Tomer Levinboim and Fei Sha. Learning the kernel matrix with low-rank multiplicative shaping. In *Proceedings of Twenty-Sixth AAAI Conference on Artificial Intelligence (AAAI)*, Toronto, 2012.

[C79] Boqing Gong, Yuan Shi, Fei Sha, and Kristen Grauman. Geodesic flow kernel for unsupervised domain adaptation. In *Proceedings of IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, Providence, Rhode Island, 2012.

[C80] Sungju Hwang, Kristen Grauman, and Fei Sha. Learning a tree of metrics with disjoint visual features. In *Proceedings of Annual Conference on Neural Information Processing Systems (NIPS)*, Granada, Spain, 2011.

[C81] Leslie Cheung, Leana Golubchik, and Fei Sha. A study of web services performance prediction: A client's perspective. In *Proceedings of the 19th Annual Meetings of the IEEE International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunications Systems (MASCOTS)*, Singapore, 2011.

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[C83] Sungju Hwang, Fei Sha, and Kristen Grauman. Sharing features between objects and their attributes. In *Proceedings of IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, Colorado Springs, CO, 2011.

[C84] Meihong Wang and Fei Sha. Information theoretical clustering via semidefinite programming. In *Proceedings of AISTATS*, Ft. Lauderdale, 2011.

[C85] Matthew E. Taylor, Brian Kullis, and Fei Sha. Metric learning for reinforcement learning agents. In *Proceedings of the Tenth International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, Taipei, 2011.

[C86] Meihong Wang, Fei Sha, and Michael I. Jordan. Unsupervised kernel dimension reduction. In *Proceedings of Neural Information Processing (NIPS)*, 2010.

[C87] Dian Gong, Fei Sha, and Gerard Medioni. Locally linear denoising on image manifolds. In *Proceeding of Artificial Intelligence and Statistics (AISTATS) 2010*, 2010.

[C88] Chih-Chieh Cheng, Fei Sha, and Lawrence K. Saul. Large margin feature adaptation for automatic speech recognition. In *Proceedings of the IEEE Workshop on Automatic Speech Recognition and Understanding (ASRU-09)*, Merano, Italy, 2009.

[C89] Chih-Chieh Cheng, Fei Sha, and Lawrence K. Saul. A fast online algorithm for large margin training of continuous density hidden Markov models. In *Proceedings of 10^{th} Annual Conference of the International Speech Communication Association (Interspeech 2009)*, Brighton, UK, 2009.

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[C91] Nilesh Dalvi, Philip Bohannon, and Fei Sha. Robust web extraction: an approach based on probabilistic tree-edit model. In *Proceedings of ACM SIGMOD 2009*, Providence, R.I., 2009.

[C92] Simon LaCoste-Jullien, Fei Sha, and Michael I. Jordan. DiscLDA: Discriminative learning for dimensionality reduction and classification. In *Proceedings of Neural Information Processing Systems*, Vancouver, Canada, 2008.

[C93] Andrea Frome, Yoram Singer, Fei Sha, and Jitendra Malik. Learning globally-consistent local distance functions for shape-based image retrieval and classification. In *Proceedings of IEEE Eleventh International Conference on Computer Vision (ICCV 2007)*, pages 1–8, Rio de Janeiro, Brazil, 2007.

[C94] Jens Nilsson, Fei Sha, and Michael I. Jordan. Regression of data on manifold with kernel dimension reduction. In Zoubin Ghahramani, editor, *Proceedings of the Twenty-Forth Annual International Conference on Machine Learning (ICML 2007)*, pages 697–704, Corvallis, OR, 2007. Omnipress.

[C95] Fei Sha, Yonghahk Park, and Lawrence Saul. Multiplicative updates for L_1-regularized linear and logistic regression. In Michael R. Berthold, John Shawe-Taylor, and Nada Lavrac, editors, *Advances in Intelligent Data Analysis VII: Proceedings of Seveth International Symposium on Intelligent Data Analysis (IDA 2007)*, volume 4723 of *Lecture note in Computer Science*, pages 13–24, Ljubljana, Slovenia, 2007. Springer.

[C96] Fei Sha and Lawrence K. Saul. Comparison of large margin training to other discriminative methods for phonetic recognition by hidden Markov models. In *Proceedings of IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) 2007*, pages 313–316, Honolulu, HI, 2007.

[C97] Fei Sha and Lawrence K. Saul. Large margin hidden Markov models for automatic speech recognition. In B. Schölkopf, J.C. Platt, and T. Hofmann, editors, *Advances in Neural Information Processing Systems 19*, pages 1249–1256, Cambridge, MA, 2007. MIT Press.

[C98] Kilian Q. Weinberger, Fei Sha, Qihui Zhu, and Lawrence K. Saul. Graph regularization for maximum variance unfolding, with an application to sensor localization. In B. Schölkopf, J. C. Platt, and T. Hofmann, editors, *Advances in Neural Information Processing Systems 19*, pages 1489–1496. MIT Press, 2007.

[C99] Fei Sha and Lawrence K. Saul. Large margin Gaussian mixture modeling for phonetic classification and recognition. In *Proceedings of IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) 2006*, pages 265–268, Toulouse, France, 2006.

[C100] Fei Sha and Lawrence K. Saul. Analysis and extension of spectral methods for nonlinear dimensionality reduction. In *Proceedings of the Twenty-second International Conference of Machine Learning (ICML 2005)*, pages 784–791, Bonn, Germany, 2005. ACM (New York, NY).

[C101] Fei Sha and Lawrence Saul. Real-time pitch determination of one or more voices by nonnegative matrix factorization. In Lawrence K. Saul, Yair Weiss, and Léon Bottou, editors, *Advances in Neural Information Processing Systems 17*, pages 1233–1240. MIT Press, Cambridge, MA, 2005.

[C102] Fei Sha, J. Ashley Burgoyne, and Lawrence K. Saul. Multiband statistical learning for f0 estimation in speech. In *Proceedings of the IEEE International Conference of Acoustics, Speech and Signal Processing (ICASSP)*, volume 5, pages 661–664, Montreal, Canada, 2004.

[C103] Kilian Q. Weinberger, Fei Sha, and Lawrence K. Saul. Learning a kernel matrix for nonlinear dimensionality reduction. In *Proceedings of the Twenty First International Conference on Machine Learning (ICML 2004)*, pages 839–846, Banff, Canada, 2004.

[C104] Fei Sha, Lawrence K. Saul, and Daniel D. Lee. Multiplicative updates for large margin classifiers. In Bernhard Schölkopf and Manfred Warmuth, editors, *Proceedings of the Sixteeth Annual Conference on Computational Learning Theory (COLT 2003)*, volume 2777 of *Lecture note in Artificial Intelligence*, pages 188–202, Washington D. C., 2003. Springer.

[C105] Fei Sha and Fernando Pereira. Shallow parsing with conditional random fields. In *Proceedings of Human Language Technology-NAACL 2003*, pages 213–220, Edmonton, Canada, 2003.

[C106] Fei Sha, Lawrence K. Saul, and Daniel D. Lee. Multiplicative updates for nonnegative quadratic programming in support vector machines. In S. Becker, S. Thrun, and K. Obermayer, editors, *Advances in Neural and Information Processing Systems 15*, volume 15, Cambridge, MA, 2003. MIT Press.

[C107] Lawrence K. Saul, Fei Sha, and Daniel D. Lee. Statistical signal processing with nonnegativity constraints. In *Proceedings of the Eighth European Conference on Speech Communication and Technology(EuroSpeech 2003)*, pages 1001–1004, Geneva, Switzerland, 2003.

Peer-Reviewed Workshops

[W1] Christian Potthast, Andreas Breitenmoser, Fei Sha, and Gaurav S. Sukhatme. Active multi-view object recognition and change detection. In *ICRA Workshop on Scaling Up Active Perception*, 2015.

[W2] Karol Hausman, Chet Corcos, Joerg Mueller, Fei Sha, and Gaurav Sukhatme. Towards interactive object recognition. In *Third Workshop on Robotics in Clutter: Perception and Interaction in Clutter*, 2015.

[W3] Zhiyun Lu, Zi Wang, and Fei Sha. Fast learning with noise in deep neural nets. In *NIPS Workshop on Perturbations, Optimization, and Statistics*, Montreal, Canada, 2014.

[W4] Franziska Meier, Amir Globerson, and Fei Sha. The more the merrier: Parameter learning for graphical models with multiple maps. In *ICML Workshop on Interaction between Inference and Learning*, Atlanta, GA, 2013.

[W5] Boqing Gong, Fei Sha, and Kristen Grauman. Overcoming dataset bias: An unsupervised domain adaptation approach. In *NIPS Workshop on Big Vision*, Lake Tahoe, CA, 2012.

[W6] Sungju Hwang, Kristen Grauman, and Fei Sha. Semantic kernel forests from multiple taxonomies. In *NIPS Workshop on Big Vision*, Lake Tahoe, CA, 2012.

[W7] Sung Ju Hwang, Fei Sha, and Kristen Grauman. Sharing features between visual tasks at different levels of granularity. In *IEEE CVPR Workshop on Fine-Grained Visual Categorization*, Colorado Springs, CO, 2011.

Others

[O1] Kilian Weinberger, Fei Sha, and Lawrence K. Saul. Convex optimizations for distance metric learning and pattern classification. *IEEE Signal Processing Magazine*, 2010.

[O2] Fei Sha. *Large margin training of acoustic models for speech recognition*. PhD thesis, University of Pennsylvania, Philadelphia, PA, 2007.

Tutorials

2013

Machine Learning
Uncertainty Quantification Summer School
U. of Southern California

Dimensionality Reduction
Computer Vision Summer School
Institute of Pure and Applied Mathematics (IPAM)
U. of California (Los Angeles)

2012

Domain Adaptation in Real-world Applications
Asian Conference on Machine Learning (ACML)
Singapore

Domain Adaptation in Machine Learning and Speech Processing
InterSpeech
Portland, OR

2010

Machine Learning for Visualization
IEEE Conference on InfoVis
Salt Lake City, UT

Invited Talks and Seminars

2025

TBD
Institute for Mathematical and Statistical Innovation
U Chicago

TBD
School of Matehmatics
Georgia Tech

2024

Advances in Probabilistic Generative Modeling for Scientific Machine Learning

Widely Applied Mathematics Seminar
Harvard University

Guest Lecture
Brown University

CS Artificial Intelligence Seminar
Cornell University

Machine Learning for Accelerating Simulation and Scientific Computing
Keynote: Platform for Advanced Scientific Computing (PASC) 2024
Zurich

2023

Exploring Large Language Models for Reasoning and Language Understanding
Faculty of Computing and Data Science
Boston University

2022

Extracting Information from Text into Memory for Knowledge-Intensive Tasks

JHU CLSP

2021

BabyWalk

ICML 2021 Workshop on Human-in-the-Loop Learning

2018

Asking Harder Questions So Machines Can Answer More Intelligently
U of Pennsylvania, Department of Computer and Information Science

2017

Do we really have a shot at solving zero-shot learning?
DALI Workshop

Zero-shot Learning for Object Recognition in the Wild
UCSD, AI Seminar

Zero-shot Learning for Object Recognition in the Wild
Johns Hopkins University, Center for Imaging Science

2016

Synthesized Classifiers for Zero-Shot Learning
Amazon

Can random features be as effective as deep learning features?
Southern California Machine Learning Symposium

Being random and shallow is almost as good as being careful and deep
Interspeech 2016 Workshop on Machine Learning and Signal Processing

Can random features be as effective as deep learning features?
U. of Central Florida Computer Vision Research Center Colloquium

2015

Can random features be as effective as deep learning features?
NIPS Workshop on Feature Selection

Large-scale Kernel Methods
NIPS Workshop on Large-scale Nonparametric Methods

Learning kernels for summarizing videos
Institute for Advanced Study (IAS) Workshop on Functoriality in Geometric Data
Hong Kong University of Science and Technology

Panel Talk and Discussions
Schloss Dagstul Seminar on Machine Learning with Interdependent and Non-identically Distributed Data
Germany

2014

Large-scale Kernel Methods for Acoustic Modeling
Spoken Language Processing (SLT) 2014
South Lake Tahoe, NV

Novel Methods for Learning to Cluster
Information Systems Lab Seminar
Dept. of Electrical Engineering
Stanford University

Novel Methods for Learning to Cluster
SDM 2014 Workshop on Exploratory Data Analysis
Philadelphia, PA

Similarity Component Analysis
Information Theory and Application (ITA) 2014
San Diego, CA

Statistical Learning for Unsupervised Domain Adaptation
UIUC AI Seminar

2013

Learning Kernels for Unsupervised Domain Adaptation
NIPS 2013 Workshop on Transfer and Multi-task Learning
Lake Tahoe, CA

Statistical Learning for Unsupervised Domain Adaptation
Google Research (Mountain View)

Probabilistic Models for Learning Similarity
Dept. of Computer Science
U. of Texas (Austin)

Statistical Learning for Unsupervised Domain Adaptation
Max-Planck Institute for Intelligent Systems
Tübingen, Germany

Probabilistic Models for Learning Similarity
Google Research (New York)

Divergence on Probability Simplexes and Its Application to Metric Learning
ICML Workshop on Divergence and Divergence Learning
Atlanta, GA

Domain Adaptation for Learning in a Changing Environment
AI Seminar
Department of Computer Science and Engineering
Ohio State University

Statistical Learning for Unsupervised Domain Adaptation
Information Theory and Application Workshop (ITA)
San Diego, CA

2012

New Approaches for Nonlinear Dimensionality Reduction
SAMSI-FODAVA Workshop on Interactive Visualization and Analysis of Massive Data
Statistical and Applied Mathematical Sciences Institute
Research Triangle Park, NC

Online Algorithms for Exponential Family models, with Application to Speech Processing
NIPS Workshop on Log-linear Models
Lake Tahoe, CA

Domain Adaptation for Learning in a Changing Environment
Departmental Seminar
Dept. of Statistics
U. of California (Los Angeles)

Domain Adaptation for Learning in a Changing Environment
AI Seminar
Dept. of Computer Science
Cornell University

Domain Adaptation for Learning in a Changing Environment
Department Colloquium
Dept. of Statistics
U. of Southern California

Domain Adaptation for Learning in a Changing Environment
Colloquium
Center for Applied Mathematics
U. of Waterloo

Domain Adaptation for Learning in a Changing Environment
Department Colloquium
Systems Engineering and Engineering Management
Chinese University of Hong Kong

Learning the Kernel Matrix with Low-rank Multiplicative Shaping
Information Theory and Application Workshop
San Diego, CA

2011

Statistical Learning Algorithms for Discovering Hidden Structures in Data

Departmental Colloquium
Computer Science and Engineering
Washington U.

Statistical Learning Algorithms for Discovering Hidden Structures in Data
Colloquium
Navy Center for Applied Research in Artificial Intelligent Colloquium

Statistical Learning Algorithms for Discovering Hidden Structures in Data
Colloquium
Department of Computational Science and Engineering
Georgia Institute of Technology

Information-theoretical Clustering with Semidefinite Programming
Information Theory and Application Workshop
La Jolla, CA

Information Theoretical Clustering via Semidefinite Programming
AI Seminar
Center for Machine Learning and Intelligent Systems
U. of California (Irvine)

2010

Learning Low-Dimensional Representation: This Way, That Way and New Ways
AAAI Fall Symposium on Manifold Learning and Its Applications
Arlington, VA

How to Harvest Information from High dimension Data with Statistical Learning Techniques
Department Seminar
Department of Statistics
U. of California (Los Angeles)

Harvest Information from High Dimensional Data with Learning Techniques
MIT Lincoln Lab

Online Learning for Large-margin CD-HMMs
Special Session on Machine Learning in Speech Recognition
Acoustic Society of America 2010 Meeting Baltimore, MD

2009

How to Harvest Information from High dimension Data with Statistical Learning Techniques
CENS Seminar

Center for Embedded Networking Systems
U. of California (Los Angeles)

DiscLDA: Discriminative Learning for Dimensionality Reduction and Classification
Information Theory and Application Workshop
La Jolla, CA

Large-margin CD-HMMs
Visitor Seminar
Electrical Engineering Department
U. of California (Los Angeles)

2008 and earlier

Computer Science and Engineering Department, Fudan University (Dec. 2008)

Computer Science Department, Nanjing University (Dec. 2008)

Microsoft Research Asia (Dec. 2008)

Google China (Dec. 2008)

AI Seminar, Information Science Institute (Jan., 2009)

NLP Seminar, Information Science Institute (Nov., 2008)

Interaction Lab Seminar, Computer Science Department, USC (Nov., 2008)

SAIL Seminar, Electrical Engineering Department, USC (Oct. 2008)

IRCS Seminar, Computer Science Department, USC (Sept. 2008)

AI Seminar, Department of Computer Science and Engineering, University of California San Diego (Nov., 2008)

Probabilistic Artificial Intelligence Luncheon, Computer Science Department, Stanford University (Nov., 2007)

NEC Research, Cupertino, CA (April, 2007)

Yahoo! Research, Santa Clara, CA (Mar., 2007)

Speech Group, IBM T. J. Watson Research Center (Mar., 2007)

SRI STAR Lab, Menlo Park, CA (Oct., 2006)

MIT EECS Seminar, Cambridge, MA (April, 2006)

NEC Labs, Princeton, NJ (March, 2006)

Siemens Corporate Research, Princeton, NJ (March, 2006)

Seminar, Dept. of Computer Science, Stony Brook University, (March, 2006)

Computational Linguistics Seminar, Univ. of Pennsylvania, (March, 2006)

Center for Intelligent Systems Seminar, Univ. of California, Berkeley, CA (March, 2006)

Microsoft Research, Redmond, WA (Feb., 2006)

Siemens Medical Solutions, Malvern, PA (Jan., 2006)

Google, New York (Dec., 2005).

NIPS Workshop of Advances in Structure Learning, Whistler, Canada (Dec., 2005).

CIAR Neural Computation and Adaptive Perception Workshop, Vancouver, Canada (Dec., 2005).

AT&T Labs, Florham Park, New Jersey (Nov., 2005)

Machine Learning Summer School, Toyota Technological Institute, Chicago (May 2005).

CIAR Neural Computation and Adaptive Perception Workshop, Montreal, Canada (April 2005).

Students and Postdocs

Outreach

Nathan Z. High School Student Intern in Summer 2016. Now a student in Cornell University.

Katarina C. High School Student Intern in Spring - Fall 2020. MIT

Former Postdoc

Aurélien Bellet. Feb. 2013 - July 2014 (now a tenured researcher at INRIA, Lille, France)

Melissa Ailem. Oct 2017 - March 2020 (now a Research Scientist at Lingua Custodia)

Chao-Kai Chiang. July 2016 - Dec 2018

Former Graduate Students

Yury Zemlyanskiy. Sept 2017 - May 2022 (Augment)

Bowen Zhang. Sept 2017 - May 2023 (Augment)

Shariq Iqbal. Sept 2017 - May 2022 (DeepMind)

Sebastian Arnold. Sept 2017 - May 2023 (Google)

Michel de Jong. Sept 2018 - present

Robby Costles. Sept 2020 - present

Wang Zhu. Jan 2021 - present

Hexiang Hu. Jan. 2017 - May 2021 (USC Research Assistant, now a Research Scientist at Google)

Zhiyun Lu. Jan. 2013 - May 2020 (USC Research Assistant, now a Software Engineer at Google)

Yiming Yan. Sept 2017 - Dec 2019 (USC Research Assistant, now a Software Engineer at ByteDance Inc.)

Jeremy Hsu. Sept 2017 - Jan 2019 (USC Research Assistant, now a student with Prof. Shri Narayan)

Ke Zhang. Aug. 2014 - May 2020 (USC Research Assistant, now in industrry)

Boqing Gong. Aug. 2011 - June 2015 (USC Viterbi Fellowship, Research Assistant, an assistant professor at U. of Central Florida, now a Principal Scientist at Tencent AI Lab)

Soravit ("Beer") Changpinyo. Aug. 2012 - Sept 2018 (USC Provost Fellowship, Research Assistant. Now at Google as Software Engineer)

Wei-lun Chao. Aug. 2013 - July 2018 (USC Viterbi Fellowship, Research Assistant, now an Assistant Professor at Ohio State from Fall 2019)

Alireza Bagheri Garakani. Aug. 2013 - June 2016 (USC Viterbi Fellowship, Research Assistant. Now at Amazon as Applied Scientist)

Meihong Wang. Aug. 2009 - Dec. 2011 (Research Assistant, now at Facebook as a Director of Engineering)

Yuan Shi. Aug. 2010 - Dec 2015 (USC Provost Fellowship, Research Assistant, now with Prof. Craig Knoblock as a RA)

Kuan Liu. Aug. 2012 - Dec 2015 (Research Assistant, Google, Software Engineer)

Hang Ma. Aug. 2014 - June 2015 (USC Viterbi Fellowship, Research Assistant, now with Prof. Sven Koenig as a RA)

Alana Shine. Aug. 2014 - June 2015 (Research Assistant, now with Profs. Shanghua Teng, David Kempe as a RA)

Dingchao Lu. Aug. 2011 - Aug. 2013 (Rose Hill and USC Viterbi Fellowships, Research Assistant, now in industry)

Tomer Levinboim. Aug. 2010 - Aug. 2013 (USC Annenberg Fellowship, Research Assistant, now a Software Engineer at Google)

Erica Greene. Dec. 2010 - Dec 2012 (Alfred Mann Innovation in Engineering Doctoral Fellowship, Research Assistant, at Etsy Inc. as a data scientist and now a Software Engineer at Canopy)

Zhouliang Kang. Aug. 2010 - Dec. 2011 (USC Provost Fellowship, Research Assistant, now a Senior Software Engineer at Google)

Scott Alfeld. Aug. 2010 - May. 2011 (Research assistant, now a faculty at Amherst College)

Sikai Zhu. Aug. 2009 - Jan. 2010 (Research Assistant, now at Airbnb)

Former Undergraduate Students

James Lu. Oct. 2012 - June 2013 (USC Viterbi School Undergraduate Student, class 2016)

Zi Wang. July 2013 - Aug 2013 (Exchange Undergraduate Student from Tsinghua U. now at MIT as a PhD student)

Thanant Jitapunkul. Summer 2009 (MIT/NSF REU student)

Former collaborating students

Christian Potthast. Aug 2009 - Aug 2016. (Research Assistant, now at Toyota Research Institute)

Bin Liu. Aug 2009 - May 2014. (Research Assistant, now a Staff Software Engineer at Google)

Caitlyn Clabaugh. Aug. 2013 - Dec 2018 (Research Assistant, co-advising with Prof. Maja Matarić)

Franziska Meier. Jan. 2012 - June 2015 (Research Assistant, co-advising with Prof. Stefan K. Schaal, now a Research scientist at Facebook)

Visiting Students/Internships

Marc Duret. June 2018 - Sep 2018 (ENS, Paris)

Jan Kremer. Sept 2015 - Dec 2015 (U. of Copenhagen PhD student)

Dong Guo. Aug. 2013 - present (USC PhD student)

Zi Wang. Feb. 2014 - May 2014 (Tsinghua undergraduate student)

Kun Fu. Dec 2014 - June 2015 (Tsinghua Graduate Student)

Junqi Ji. Dec 2014 - June 2015 (Tsinghua Graduate Student)

Doctoral Disseration Committees

Jo-Anne Ting (2008), Gautam Thatte(2010), Emily Mower (2010), Abimanyu Das (2011), Kjong Lerhman (2012), Qiang Song (2013), Dian Gong (2013), Ming Li (2013), Qun Feng Tan (2013), , Angeliki Metallinou (2013), Moo-Ryong Ra (2013), Harsh Vathsangam (2013), Yu Pa (2013), Kartik Audhkhasi (2014), Ryan K. Williams (2014), Andreas Tsiartas (2014)

PhD Qualifying Exam Committees at USC

Jessy Lee (2009), Anon Plangprasopchok (2009), Abhishek Sharma (2009), Reid Swanson (2009), Selina Chu (2009), Jonathan Kelly (2009), Gautam Thatte (2009), Hoang Le (2009), Emily Mower (2009), Thang Dinh (2010), Kiong Lehmann (2010), Dian Gong (2011), Qiang Song (2011), Lingyan Sheng (2011), Harsh Vathsangam (2011), Angeliki Metallinou (2011), Qun Feng Tan (2011), Li Ming (2012), Kartik Audhkhasi (2012), Yukikazu Hidaka (2012), Ryan K. Williams (2012), Peter Pastor (2013), Mrinal Kalakrishnan (2013), Bin Liu (2013), Lin Yang (2014), Charanraj Thimmisetty (2014)

External Committees

Doctoral Dissertation Committee: Remi Lajugie (advised by Prof. Francis Bach and Dr. Sylvanin Arlot) , École Normale Supérieure (ENS, Paris, France), 2015

Doctoral Dissertation Committee: Jun Wang (advised by Prof. Alexandros Kalousis), U. of Geneva (Geneva, Switzerland), 2015

Doctoral Dissertation Committee: Jin Joo Lee (advised by Prof. Cynthia Breazeal) , MIT, 2015

Doctoral Dissertation Committee: Sung Ju Hwang (advised by Prof. Kristen Grauman), U. of Texas (Austin), 2013

PhD General Exam Committee: Jin Joo Lee (advised by Prof. Cynthia Breazeal) , MIT, 2013

Doctoral Dissertation Committee: Chih-Chieh Cheng, U. of California (San Diego), 2011