

Dequan Wang, Ph.D.

✉ dequanwang@sjtu.edu.cn
🏠 Shanghai Jiao Tong University

🌐 <https://dequan.wang>
🏠 Shanghai Innovation Institute



Education

- 2012 – 2016 Computer Science B.S. at **Fudan University**
GPA: 3.7/4.0, Rank: 2/111
- 2016 – 2022 Computer Science Ph.D. at **University of California, Berkeley**
GPA: 4.0/4.0, Advisor: Trevor Darrell
Thesis: *Learning to Generalize in Dynamic Environments*

Positions

- 2023 – 2025 Assistant Professor at **Shanghai Jiao Tong University**
- 2023 – 2024 Research Scientist at **Shanghai Artificial Intelligence Laboratory**
- 2025 – Full-time Mentor at **Shanghai Innovation Institute**
- 2026 – Associate Professor at **Shanghai Jiao Tong University**

Distinctions

Academics & Research

- 2020 World Artificial Intelligence Conference (WAIC) Rising Star Award
- 2021 Shanghai Overseas High-Level Young Talent Program
- 2024 NSFC Excellent Young Scientists (Overseas)
- 2025 Stanford/Elsevier World's Top 2% Scientists

Services & Activities

- 2017 Organizer of CVPR Autonomous Driving Workshop
Organizer of ICCV TASK-CV Domain Adaptation Workshop
- 2023 Guest Editor of MedIA Special Issue: Foundation Models for Medical Image Analysis
Organizer of NeurIPS Foundation Model Prompting for Medical Image Classification Challenge
- 2024 Organizer of CVPR Test-Time Adaptation Workshop
- 2026 Organizer of ICLR Monitoring Machine Learning Models Under Drift Workshop
Area Chair of Third Conference on Language Modeling (COLM)
Area Chair of IEEE International Conference on Data Mining (ICDM)

Grants

- 2023 – 2026 Key Research and Development Program of Shandong Province, China
- 2024 – 2027 Key Research and Development Program of Shandong Province, China
- 2025 – 2027 NSFC Science Fund Program for Excellent Young Scientists (Overseas)
- 2025 – 2028 Shanghai Agricultural Science and Technology Innovation Program

Teaching

Spring 2024	Designing and Understanding Deep Neural Networks
Summer 2024	Introduction to Large Language Models
Fall 2024	Hands-On Artificial Intelligence
Spring 2025	Introduction to Large Language Models Designing and Understanding Deep Neural Networks
Summer 2025	Introduction to Large Language Models
Fall 2025	Coding with AI Hands-On Artificial Intelligence
Spring 2026	Coding with AI Hands-On Artificial Intelligence Introduction to Large Language Models Designing and Understanding Deep Neural Networks
Summer 2026	Introduction to Large Language Models
Fall 2026	Coding with AI

Publications

Books and Chapters

- 1 Yuming Lu, **Dequan Wang**, Hongtian Chen, Xuehai Hu, Zehua Guo, and Bin Hu, *Agricultural Artificial Intelligence*. Higher Education Press, 2025.

Journal Articles

- 1 Qi Yao, Jin Gao, Keling Wang, Yufeng Liu, Peijin Han, Hong Pan, Xiaofeng Yang, Qianlan Yin, Dating Zhong, Lu Ye, Qi Deng, Lingling Gao, Xiaoyu Tu, **Dequan Wang**, and Yuming Lu, “From natural discovery to ai-guided design: A curated collection of compact enhancers for crop engineering,” *Advanced Science*, 2026.  DOI: 10.1002/advs.202516600.
- 2 Yunkun Zhang, Jin Gao, Zheling Tan, Lingfeng Zhou, Kexin Ding, Mu Zhou, Shaoting Zhang, and **Dequan Wang**, “Data-centric foundation models in computational healthcare: A survey,” *ACM Computing Surveys*, 2026.  DOI: 10.1145/3800677.
- 3 **Dequan Wang**, Zheling Tan, Jin Gao, Shaoting Zhang, Jiaqi Shen, and Yuming Lu, “AI4Protein: Transforming the future of protein design,” *Science China Life Sciences*, 2025.  DOI: 10.1007/s11427-024-2906-3.
- 4 Zhenyu Wang, **Dequan Wang**, Yi Xu, Lingfeng Zhou, and Yiqi Zhou, “Intelligent computing social modeling and methodological innovations in political science in the era of large language models,” *Journal of Chinese Political Science*, 2025.  DOI: 10.1007/s11366-025-09917-6.
- 5 **Dequan Wang**, Xiaosong Wang, Lilong Wang, Mengzhang Li, Qian Da, Xiaoqiang Liu, Xiangyu Gao, Jun Shen, Junjun He, Tian Shen, Qi Duan, Jie Zhao, Kang Li, Yu Qiao, and Shaoting Zhang, “A real-world dataset and benchmark for foundation model adaptation in medical image classification,” *Scientific Data*, 2023.  DOI: 10.1038/s41597-023-02460-0.

Conference Proceedings

- 1 Jin Gao, Juntu Zhao, Zirui Zeng, Jiaqi Shen, Junhao Shi, Dukun Zhao, Yuming Lu, and **Dequan Wang**, “TadA-Bench: A million-variant benchmark for future-round discovery toward agentic protein engineering,” in *ICML*, 2026.
- 2 Keyu Li, Jin Gao, and **Dequan Wang**, “Aligned agents, biased swarm: Measuring bias amplification in multi-agent systems,” in *ICLR*, 2026.
- 3 Keyu Li, Junhao Shi, Yang Xiao, Mohan Jiang, Jie Sun, Yunze Wu, Dayuan Fu, Shijie Xia, Xiaojie Cai, Tianze Xu, Weiye Si, Wenjie Li, **Dequan Wang**, and Pengfei Liu, “AgencyBench: Benchmarking the frontiers of autonomous agents in 1m-token real-world contexts,” in *ACL*, 2026.

- 4 Yufeng Liu, Hang Yu, Juntu Zhao, Bocheng Li, Di Zhang, Mingzhu Li, Wenxuan Wu, Yingdong Hu, Junyuan Xie, Junliang Guo, **Dequan Wang**, and Yang Gao, "Learning native continuation for action chunking flow policies," in *RSS*, 2026.
- 5 Zheling Tan, Jin Gao, and **Dequan Wang**, "CABLE: Extending the reach of memory retrieval via complementary antecedent-based linking and expansion," in *COLM*, 2026.
- 6 Lingfeng Zhou, Junhao Shi, Jin Gao, and **Dequan Wang**, "Credit-budgeted ICPC-style coding: When agents must pay for every decision," in *ICLR*, 2026.
- 7 Mohan Jiang, Jin Gao, Jiahao Zhan, and **Dequan Wang**, "MAC: A live benchmark for multimodal large language models in scientific understanding," in *COLM*, 2025.
- 8 Fangyu Wu, **Dequan Wang**, Minjune Hwang, Chenhui Hao, Jiawei Lu, Jiamu Zhang, Christopher Chou, Trevor Darrell, and Alexandre Bayen, "Decentralized vehicle coordination: The berkeley deepdrive drone dataset and consensus-based models," in *ICRA*, 2025.
- 9 Lingfeng Zhou, Jialing Zhang, Jin Gao, Mohan Jiang, and **Dequan Wang**, "PersonaEval: Are llm evaluators human enough to judge role-play?" In *COLM*, 2025.
- 10 Jin Gao, Lei Gan, Yuankai Li, Yixin Ye, and **Dequan Wang**, "Dissecting dissonance: Benchmarking large multi-modal models against self-contradictory instructions," in *ECCV*, 2024.
- 11 Siqi Kou, Lei Gan, **Dequan Wang**, Chongxuan Li, and Zhijie Deng, "BayesDiff: Estimating pixel-wise uncertainty in diffusion via bayesian inference," in *ICLR*, 2024.
- 12 Yifan Lu, Yue Hu, Yiqi Zhong, **Dequan Wang**, Siheng Chen, and Yanfeng Wang, "An extensible framework for open heterogeneous collaborative perception," in *ICLR*, 2024.
- 13 Juntu Zhao, Junyu Deng, Yixin Ye, Chongxuan Li, Zhijie Deng, and **Dequan Wang**, "Lost in translation: Latent concept misalignment in text-to-image diffusion models," in *ECCV*, 2024.
- 14 Jin Gao, Jialing Zhang, Xihui Liu, Trevor Darrell, Evan Shelhamer, and **Dequan Wang**, "Back to the source: Diffusion-driven adaptation to test-time corruption," in *CVPR*, 2023.
- 15 Yunkun Zhang, Jin Gao, Mu Zhou, Xiaosong Wang, Yu Qiao, Shaoting Zhang, and **Dequan Wang**, "Text-guided foundation model adaptation for pathological image classification," in *MICCAI*, 2023.
- 16 Dian Chen, **Dequan Wang**, Trevor Darrell, and Sayna Ebrahimi, "Contrastive test-time adaptation," in *CVPR*, 2022.
- 17 Xiaoxuan Liu, Lianmin Zheng, **Dequan Wang**, Yukuo Cen, Weize Chen, Xu Han, Jianfei Chen, Zhiyuan Liu, Jie Tang, Joey Gonzalez, Michael Mahoney, and Alvin Cheung, "GACT: Activation compressed training for generic network architectures," in *ICML*, 2022.
- 18 Jianfei Chen, Lianmin Zheng, Zhewei Yao, **Dequan Wang**, Ion Stoica, Michael Mahoney, and Joseph Gonzalez, "ActNN: Reducing training memory footprint via 2-bit activation compressed training," in *ICML*, 2021.
- 19 Qijing Huang, **Dequan Wang**, Zhen Dong, Yizhao Gao, Yaohui Cai, Tian Li, Bichen Wu, Kurt Keutzer, and John Wawrzyniec, "CoDeNet: Efficient deployment of input-adaptive object detection on embedded fpgas," in *FPGA*, 2021.
- 20 **Dequan Wang**, Evan Shelhamer, Shaoteng Liu, Bruno Olshausen, and Trevor Darrell, "TENT: Fully test-time adaptation by entropy minimization," in *ICLR*, 2021.
- 21 Hou-Ning Hu, Qi-Zhi Cai, **Dequan Wang**, Ji Lin, Min Sun, Philipp Krahenbuhl, Trevor Darrell, and Fisher Yu, "Joint monocular 3d vehicle detection and tracking," in *ICCV*, 2019.
- 22 Chiyu Jiang, **Dequan Wang**, Jingwei Huang, Philip Marcus, and Matthias Nießner, "Convolutional neural networks on non-uniform geometrical signals using euclidean spectral transformation," in *ICLR*, 2019.
- 23 **Dequan Wang**, Coline Devin, Qi-Zhi Cai, Philipp Krähenbühl, and Trevor Darrell, "Monocular plan view networks for autonomous driving," in *IROS*, 2019.
- 24 **Dequan Wang**, Coline Devin, Qi-Zhi Cai, Fisher Yu, and Trevor Darrell, "Deep object-centric policies for autonomous driving," in *ICRA*, 2019.
- 25 Fisher Yu, **Dequan Wang**, Evan Shelhamer, and Trevor Darrell, "Deep layer aggregation," in *CVPR*, 2018.
- 26 Zhiqiang Shen, Yu-Gang Jiang, **Dequan Wang**, and Xiangyang Xue, "Iterative object and part transfer for fine-grained recognition," in *ICME*, 2017.

- 27 **Dequan Wang**, Zhiqiang Shen, Jie Shao, Wei Zhang, Xiangyang Xue, and Zheng Zhang, “Multiple granularity descriptors for fine-grained categorization,” in *ICCV*, 2015.
- 28 Wei Zhang, Sheng Zeng, **Dequan Wang**, and Xiangyang Xue, “Weakly supervised semantic segmentation for social images,” in *CVPR*, 2015.

Preprints and Technical Reports

- 1 Mohan Jiang, Dayuan Fu, Junhao Shi, Ji Zeng, Weiye Si, Keyu Li, Xuefeng Li, Yang Xiao, Wenjie Li, **Dequan Wang**, and Pengfei Liu, “Davinci-agency: Unlocking long-horizon agency data-efficiently,” 2026. arXiv: 2602.02619.
- 2 Keyu Li, Mohan Jiang, Dayuan Fu, Yunze Wu, Xiangkun Hu, **Dequan Wang**, and Pengfei Liu, “Datasetresearch: Benchmarking agent systems for demand-driven dataset discovery,” 2025. arXiv: 2508.06960.
- 3 Junyi Shen, Noppanat Wadlom, Lingfeng Zhou, **Dequan Wang**, Xu Miao, Lei Fang, and Yao Lu, “Flowmesh: A service fabric for composable llm workflows,” 2025. arXiv: 2510.26913.
- 4 Zheling Tan, Kexin Ding, Jin Gao, Mu Zhou, Dimitris Metaxas, Shaoting Zhang, and **Dequan Wang**, “Medforge: Building medical foundation models like open source software development,” 2025. arXiv: 2502.16055.
- 5 Yang Xiao, Mohan Jiang, Jie Sun, Keyu Li, Jifan Lin, Yumin Zhuang, Ji Zeng, Shijie Xia, Qishuo Hua, Xuefeng Li, Xiaojie Cai, Tongyu Wang, Yue Zhang, Liming Liu, Xia Wu, Jinlong Hou, Yuan Cheng, Wenjie Li, Xiang Wang, **Dequan Wang**, and Pengfei Liu, “Limi: Less is more for agency,” 2025. arXiv: 2509.17567.
- 6 Juntu Zhao, Wenbo Lu, Di Zhang, Yufeng Liu, Yushen Liang, Tianluo Zhang, Yifeng Cao, Junyuan Xie, Yingdong Hu, Shengjie Wang, Junliang Guo, **Dequan Wang**, and Yang Gao, “Do you need proprioceptive states in visuomotor policies?,” 2025. arXiv: 2509.18644.
- 7 Juntu Zhao, Jialing Zhang, Chongxuan Li, and **Dequan Wang**, “Saying the unsaid: Revealing the hidden language of multimodal systems through telephone games,” 2025. arXiv: 2511.10690.
- 8 Lingfeng Zhou, Yi Xu, Zhenyu Wang, and **Dequan Wang**, “Flockvote: Llm-empowered agent-based modeling for simulating us presidential elections,” 2025. arXiv: 2512.05982.
- 9 Yixing Li, Yuxian Gu, Li Dong, **Dequan Wang**, Yu Cheng, and Furu Wei, “Direct preference knowledge distillation for large language models,” 2024. arXiv: 2406.19774.
- 10 Xiaosong Wang, Xiaofan Zhang, Guotai Wang, Junjun He, Zhongyu Li, Wentao Zhu, Yi Guo, Qi Dou, Xiaoxiao Li, **Dequan Wang**, Liang Hong, Qicheng Lao, Tong Ruan, Yukun Zhou, Yixue Li, Jie Zhao, Kang Li, Xin Sun, Lifeng Zhu, and Shaoting Zhang, “OpenMEDLab: An open-source platform for multi-modality foundation models in medicine,” 2024. arXiv: 2402.18028.
- 11 Huahui Yi, Ziyuan Qin, Qicheng Lao, Wei Xu, Zekun Jiang, **Dequan Wang**, Shaoting Zhang, and Kang Li, “Towards general purpose medical ai: Continual learning medical foundation model,” 2023. arXiv: 2303.06580.
- 12 **Dequan Wang**, An Ju, Evan Shelhamer, David Wagner, and Trevor Darrell, “Fighting gradients with gradients: Dynamic defenses against adversarial attacks,” 2021. arXiv: 2105.08714.
- 13 **Dequan Wang**, Shaoteng Liu, Sayna Ebrahimi, Evan Shelhamer, and Trevor Darrell, “On-target adaptation,” 2021. arXiv: 2109.01087.
- 14 Mong H Ng, Kaahan Radia, Jianfei Chen, **Dequan Wang**, Ionel Gog, and Joseph E Gonzalez, “BEV-Seg: Bird’s eye view semantic segmentation using geometry and semantic point cloud,” 2020. arXiv: 2006.11436.
- 15 Evan Shelhamer, **Dequan Wang**, and Trevor Darrell, “Blurring the line between structure and learning to optimize and adapt receptive fields,” 2019. arXiv: 1904.11487.
- 16 **Dequan Wang**, Evan Shelhamer, Bruno Olshausen, and Trevor Darrell, “Dynamic scale inference by entropy minimization,” 2019. arXiv: 1908.03182.
- 17 Xingyi Zhou, **Dequan Wang**, and Philipp Krähenbühl, “Objects as points,” 2019. arXiv: 1904.07850.
- 18 Xingchao Peng, Ben Usman, Neela Kaushik, Judy Hoffman, **Dequan Wang**, and Kate Saenko, “VisDA: The visual domain adaptation challenge,” 2017. arXiv: 1710.06924.
- 19 Judy Hoffman, **Dequan Wang**, Fisher Yu, and Trevor Darrell, “FCNs in the wild: Pixel-level adversarial and constraint-based adaptation,” 2016. arXiv: 1612.02649.
- 20 Jie Shao, **Dequan Wang**, Xiangyang Xue, and Zheng Zhang, “Learning to point and count,” 2015. arXiv: 1512.02326.