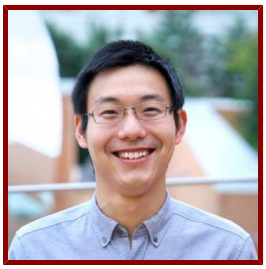
Stanford



Jiajun Wu

Assistant Professor of Computer Science and, by courtesy, of Psychology

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BIO

Jiajun Wu is an Assistant Professor of Computer Science and, by courtesy, of Psychology at Stanford University, working on computer vision, machine learning, robotics, and computational cognitive science. Before joining Stanford, he was a Visiting Faculty Researcher at Google Research. He received his PhD in Electrical Engineering and Computer Science from the Massachusetts Institute of Technology. Wu's research has been recognized through the IJCAI Computers and Thought Award, the Young Investigator Programs (YIP) by ONR and by AFOSR, the Early Career Program (ECP) by ARO, the NSF CAREER award, the Okawa research grant, the AI's 10 to Watch by IEEE Intelligent Systems, paper awards and finalists at ICCV, CVPR, SIGGRAPH Asia, ICRA, CoRL, and IROS, dissertation awards from ACM, AAAI, and MIT, the 2020 Samsung AI Researcher of the Year, and faculty research awards from Microsoft, Google, Nvidia, J.P. Morgan, Samsung, Amazon, and Meta.

ACADEMIC APPOINTMENTS

- Assistant Professor, Computer Science
- Assistant Professor (By courtesy), Psychology
- Member, Bio-X
- Faculty Affiliate, Institute for Human-Centered Artificial Intelligence (HAI)
- Member, Wu Tsai Human Performance Alliance
- Member, Wu Tsai Neurosciences Institute

HONORS AND AWARDS

- Computers and Thought Award, IJCAI (2026)
- Early Career Program (ECP), ARO (2026)
- Faculty Fellowship, Microsoft Research (2026)
- Academic Grant, Nvidia (2025)
- Research Scholar Award, Google (2025)
- Best Paper Award Finalist, ICRA, IEEE (2025)

- Research Grant, Okawa Foundation (2024)
- CAREER Award, NSF (2024)
- Young Investigator Program (YIP), ONR (2024)
- AI's 10 to Watch, IEEE Intelligent Systems (2024)
- Best Paper Award, ICRA, IEEE (2024)
- Innovators Under 35 Asia Pacific, MIT Technology Review (2024)
- Young Investigator Program (YIP), AFOSR (2023)
- Best Paper Award, SIGGRAPH Asia, ACM (2023)
- Best Systems Paper Award, CoRL (2023)
- Best Paper Award Finalist, ICCV, IEEE/CVF (2023)
- Best Paper Award Candidate, CVPR, IEEE/CVF (2023)
- Global Research Outreach (GRO) Award, Samsung (2023)
- New Faculty Highlights, AAAI (2023)
- Best Paper Award Nominee, CoRL (2022)
- Faculty Research Award, J.P. Morgan (2022)
- 30 Under 30, Science, Forbes (2022)
- Early Career Professor Award Finalist, Agilent (2022)
- Research Award, Meta (2021)
- Research Award, Amazon (2021)
- AI Researcher of the Year, Samsung (2020)
- Global Research Outreach (GRO) Award, Samsung (2020)
- George M. Sprowls PhD Thesis Award in Artificial Intelligence and Decision-Making, MIT (2020)
- Doctoral Dissertation Award Honorable Mention, ACM (2019)
- Dissertation Award, AAAI/ACM SIGAI (2019)
- PhD Fellowship, Facebook (2017--2019)
- Best Paper Award on Cognitive Robotics, IROS, IEEE/RSJ (2018)
- PhD Fellowship, Samsung (2016--2017)
- Graduate Fellowship, Nvidia (2016--2017)
- Research Fellowship, Adobe (2015)
- Edwin S. Webster Fellowship, MIT (2014)

PROGRAM AFFILIATIONS

- Stanford SystemX Alliance
- Symbolic Systems Program

PROFESSIONAL EDUCATION

- Ph.D., MIT , EECS
- S.M., MIT , EECS

LINKS

- Personal Site: https://jiajunwu.com/

- Google Scholar: https://scholar.google.com/citations?user=2efgcS0AAAAJ&hl=en&oi=ao
- DBLP: https://dblp.dagstuhl.de/pid/117/4768.html

Teaching

COURSES

2026-27

- Minds and Machines: CS 24, LINGUIST 35, PHIL 99, PSYCH 35, SYMSYS 1, SYMSYS 200 (Win)

2025-26

- Minds and Machines: CS 24, LINGUIST 35, PHIL 99, PSYCH 35, SYMSYS 1, SYMSYS 200 (Spr)

2024-25

- Minds and Machines: CS 24, LINGUIST 35, PHIL 99, PSYCH 35, SYMSYS 1, SYMSYS 200 (Win)

2023-24

- Computer Graphics in the Era of AI: CS 348I (Win)
- Minds and Machines: CS 24, LINGUIST 35, PHIL 99, PSYCH 35, SYMSYS 1, SYMSYS 200 (Win)

STANFORD ADVISEES

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Doctoral (Program)

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Publications

PUBLICATIONS

- **Discovering Hybrid World Representations with Co-Evolving Foundation Models**

Wu, J., Zhang, Y., Yu, H., Hsu, J., Mao, J.
edited by Koenig, S., Jenkins, C., Taylor, M. E.
ASSOC ADVANCEMENT ARTIFICIAL INTELLIGENCE.2026: 41020-41024

- **A review of learning-based dynamics models for robotic manipulation.** *Science robotics*
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- **Birth and Death of a Rose**
  Geng, C., Zhang, Y., Wu, S., Wu, J., IEEE COMPUTER SOC
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- **WonderWorld: Interactive 3D Scene Generation from a Single Image**
  Yu, H., Duan, H., Herrmann, C., Freeman, W. T., Wu, J., IEEE COMPUTER SOC
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- **The Scene Language: Representing Scenes with Programs, Words, and Embeddings**
  Zhang, Y., Li, Z., Zhou, M., Wu, S., Wu, J., IEEE COMPUTER SOC
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- **Physical scene understanding** *AI MAGAZINE*
  Wu, J.
  2024

- **Neurosymbolic Models for Computer Graphics** *COMPUTER GRAPHICS FORUM*
  Ritchie, D., Guerrero, P., Jones, R., Mitra, N. J., Schulz, A., Willis, K. D. D., Wu, J.
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- **REALIMPACT: A Dataset of Impact Sound Fields for Real Objects**
  Clarke, S., Xu, J., Gao, R., Wang, J., Wang, M., James, D. L., Rau, M., Wu, J., IEEE
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- **RoboCook: Long-Horizon Elasto-Plastic Object Manipulation with Diverse Tools**
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- **Seeing a Rose in Five Thousand Ways**
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- **OBJECTFOLDER 2.0: A Multisensory Object Dataset for Sim2Real Transfer**
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- **3D Shape Generation and Completion through Point-Voxel Diffusion**
  Zhou, L., Du, Y., Wu, J., IEEE
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- **Visual Dynamics: Stochastic Future Generation via Layered Cross Convolutional Networks** *IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE*
  Xue, T., Wu, J., Bouman, K. L., Freeman, W. T.
  2019; 41 (9): 2236–50

- **Learning a Probabilistic Latent Space of Object Shapes via 3D Generative-Adversarial Modeling**
  Wu, J., Zhang, C., Xue, T., Freeman, W. T., Tenenbaum, J. B.
  edited by Lee, D. D., Sugiyama, M., Luxburg, U. V., Guyon, Garnett, R.
  NEURAL INFORMATION PROCESSING SYSTEMS (NIPS).2016

- **Galileo: Perceiving Physical Object Properties by Integrating a Physics Engine with Deep Learning**

Wu, J., Yildirim, I., Lim, J. J., Freeman, W. T., Tenenbaum, J. B.
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  Odden, M. C., Tan, A. X., Lai, S. D., Rhodes, J. D., Judd, S., Sargent, K., Mwanda, S., Rowe, S., Wu, J., King, A. C., Ravi, V.
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- **Deep Sketch-Based 3D Modeling: A Survey** *COMPUTER GRAPHICS FORUM*
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  Sun, F., Wu, S., Jacobsen, C., Yim, T., Zou, H., Zook, A., Li, S., Chou, Y., Can, E., Wu, X., Eppner, C., Blukis, V., Tremblay, et al
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- **Re-thinking Temporal Search for Long-Form Video Understanding.** *Proceedings. IEEE Computer Society Conference on Computer Vision and Pattern Recognition*
  Ye, J., Wang, Z., Sun, H., Chandrasegaran, K., Durante, Z., Eyzaguirre, C., Bisk, Y., Niebles, J. C., Adeli, E., Fei-Fei, L., Wu, J., Li, M.
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  ASSOC COMPUTING MACHINERY.2025
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  IEEE.2025: 2873-2880

- **Learning Smooth Humanoid Locomotion through Lipschitz-Constrained Policies**
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  Guo, M., Tang, M., Cha, H., Zhang, R., Liu, C., Wu, J., IEEE COMPUTER SOC
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- **PhysDreamer: Physics-Based Interaction with 3D Objects via Video Generation**
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- **Reconstruction and Simulation of Elastic Objects with Spring-Mass 3D Gaussians**
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- **Foundation models in robotics: Applications, challenges, and the future** *INTERNATIONAL JOURNAL OF ROBOTICS RESEARCH*
  Firoozi, R., Tucker, J., Tian, S., Majumdar, A., Sun, J., Liu, W., Zhu, Y., Song, S., Kapoor, A., Hausman, K., Ichter, B., Driess, D., Wu, et al
  2024
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  Sun, F., Tremblay, J., Blukis, V., Lin, K., Xu, D., Ivanovic, B., Karkus, P., Birchfield, S., Fox, D., Zhang, R., Li, Y., Wu, J., Pavone, et al
  IEEE COMPUTER SOC.2024: 453-463
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