

Yansen Wang

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Google Scholar: 1,872 citations; h-index 14; i10-index 18 (retrieved Jul. 2026)

Education & Work Experience

09/2021 - Present	Senior Researcher, Shanghai AI/ML Group, Microsoft Research Asia (Shanghai)
08/2019 - 08/2021	Master of Language Technologies, Language Technologies Institute, Carnegie Mellon University Advisor: Prof. Carolyn Penstein Rose
08/2015 - 07/2019	B.E. in Computer Science and Technology, Tsinghua University Advisor: Prof. Minlie Huang
Research Interests	Brain-inspired AI; brain-computer interfaces; EEG foundation models; time-series modeling; multi-modal machine learning.

Research Experience

09/2021 - Present	Senior Researcher <i>Microsoft Research Asia, Shanghai AI/ML Group</i> - Lead research on EEG signal understanding, BCI foundation models, and generative brain-signal decoding, with work including NeuroLM, EEGFormer, EEG2Video, and visual-perception reconstruction from human brain signals. - Develop brain-inspired neural architectures for time-series and sequential modeling, including spiking neural networks, spiking transformers, and central-pattern-generator-based sequence models. - Explore general-purpose modeling systems for irregular time series and neural circuits, contributing to ContiFormer and CircuitNet.
09/2019 - 08/2021	Graduate Research Assistant <i>TELEDIA Lab, Carnegie Mellon University; supervised by Prof. Carolyn Penstein Rose</i> - Worked on multimodal NLP and collaborative-learning systems, including smart-office collaboration support and multimodal keyphrase extraction. - Studied multimodal signals and user-facing representations in social and educational settings, spanning Tumblr content propagation and collaborative-learning interaction detection.
07/2018 - 09/2018	Summer Research Intern <i>MultiComp Lab, Carnegie Mellon University; supervised by Prof. Louis-Philippe Morency</i> Designed a multimodal word-representation method that dynamically adapts word embeddings using visual and acoustic behavior signals.
10/2016 - 08/2019	Undergraduate Research Assistant <i>Artificial Intelligence Lab, Tsinghua University; supervised by Prof. Minlie Huang</i> - Built question generation models for open-domain conversational systems with typed decoders. - Incorporated incremental encoding and commonsense knowledge into story-ending generation.

Selected Publications

2026	N Lin, Y Wang, D Han, W Jiang, J Li, R Furuta, Y Sato, D Li. EgoBrain: Synergizing Minds and Eyes For Human Action Understanding . <i>ICLR 2026</i> .
2025	X Wang, K Song, X Tan, H Jiang, C Zhang, Y Shen, C Lu, Z Li, Z Song, C Shan, Y Wang, K Ren, X Zheng, T Qin, Y Yang, D Li, L Qiu. Chain-of-Model Learning for Language Model . <i>NeurIPS 2025</i> .
2025	Y Zhang, D Han, Y Wang, Z Lv, Y Gu, D Li. SimSort: A Data-Driven Framework for Spike Sorting by Large-Scale Electrophysiology Simulation . <i>NeurIPS 2025</i> .
2025	C Lv, Y Wang, D Han, Y Shen, X Zheng, X Huang, D Li. Toward Relative Positional Encoding in Spiking Transformers . <i>NeurIPS 2025</i> .
2025	W Jiang, Y Wang, B Lu, D Li. NeuroLM: A Universal Multi-task Foundation Model for Bridging the Gap between Language and EEG Signals . <i>ICLR 2025</i> .
2025	J Li, Y Wang, N Lin, D Li. Translating Mental Imaginations into Characters with Codebooks and Dynamics-Enhanced Decoding . <i>ICASSP 2025</i> .
2024	X Liu, YK Liu, Y Wang, K Ren, H Shi, Z Wang, D Li, B Lu, WL Zheng. EEG2Video: Towards Decoding Dynamic Visual Perception from EEG Signals . <i>NeurIPS 2024. (Corresponding Author)</i>
2024	C Lv, Y Wang, D Han, X Zheng, X Huang, D Li. Efficient and Effective Time-Series Forecasting with Spiking Neural Networks . <i>ICML 2024. (Corresponding Author)</i>
2024	C Lv, D Han, Y Wang, X Zheng, X Huang, D Li. Advancing Spiking Neural Networks for Sequential Modeling with Central Pattern Generators . <i>NeurIPS 2024</i> .
2024	B Jing, Y Wang, G Sui, J Hong, J He, Y Yang, D Li, K Ren. Automated Contrastive Learning Strategy Search for Time Series . <i>CIKM 2024</i> .
2024	Y Chen, K Ren, K Song, Y Wang, Y Wang, D Li, L Qiu. EEGFormer: Towards Transferable and Interpretable Large-Scale EEG Foundation Model . <i>AAAI Spring Symposium 2024</i> .
2024	E Qu, Y Wang, X Luo, W He, K Ren, D Li. CNN Kernels Can Be the Best Shapelets . <i>ICLR 2024</i> .

- 2023 Y Chen, K Ren, **Y Wang**, Y Fang, W Sun, D Li. **ContiFormer: Continuous-Time Transformer for Irregular Time Series Modeling**. *NeurIPS 2023*.
- 2023 K Yi, **Y Wang**, K Ren, D Li. **Learning Topology-Agnostic EEG Representations with Geometry-Aware Modeling**. *NeurIPS 2023*. (*Corresponding Author*)
- 2023 YT Lan, K Ren, **Y Wang**, WL Zheng, D Li, BL Lu, L Qiu. **Seeing through the Brain: Image Reconstruction of Visual Perception from Human Brain Signals**. *arXiv preprint*. (*Corresponding Author*)
- 2023 **Y Wang**, X Jiang, K Ren, C Shan, X Luo, D Han, K Song, Y Shen, D Li. **CircuitNet: A Generic Neural Network to Realize Universal Circuit Motif Modeling**. *ICML 2023*. (*Corresponding Author*)
- 2022 R Shi, X Jiang, C Shan, **Y Wang**, D Li. **RendNet: Unified 2D/3D Recognizer With Latent Space Rendering**. *CVPR 2022*.
- 2020 **Y Wang**, Z Fan, CP Rose. **Incorporating Multimodal Information in Open-Domain Web Keyphrase Extraction**. *EMNLP 2020*.
- 2019 **Y Wang**, Y Shen, Z Liu, PP Liang, A Zadeh, LP Morency. **Words Can Shift: Dynamically Adjusting Word Representations Using Nonverbal Behaviors**. *AAAI 2019*.
- 2019 J Guan*, **Y Wang***, M Huang. **Story Ending Generation with Incremental Encoding and Commonsense Knowledge**. *AAAI 2019*. (* *Co-first author*)
- 2018 **Y Wang***, C Liu*, M Huang, L Nie. **Learning to Ask Questions in Open-Domain Conversational Systems with Typed Decoders**. *ACL 2018*. (* *Co-first author*)

Technical Skills

Research	EEG/BCI modeling, time-series analysis, multimodal learning, NLP, computer vision, spiking neural networks.
Engineering	Python, PyTorch, TensorFlow, C/C++, Java, Matlab, numerical modeling and machine learning pipelines.