Juntang Wang

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Education

Harvard University 2026 – 2027
M.S. in Data Science; cross-registered at MIT *Cambridge, MA*
- Coursework: MIT Statistical Learning Theory, Computer Vision, Data Science, Wearable FMs and Agentic Systems.
- Thesis: Statistical Learning Theory for Compositional Learning; advisors: Profs. Yilun Du, Tomaso Poggio.

Duke University & Duke Kunshan University *(Dual Degree)* 2022 – 2026
B.S. Interdisciplinary Studies; B.S. Applied Math & Comp. Sci. (CS Track) *Durham, NC; Kunshan, China*
- Graduation with Distinction (Top 5%) and Latin Honors *cum laude*; GPA: 3.8/4.0 (Duke: 4.0/4.0; Major: 4.0/4.0).
- Thesis: "Manifold-Informed NNs". A^+: Deep Learning, Machine Learning, Graph/Network/Matrix Analysis, Databases.

Publications & Open-Source Software

Juntang Wang, Hao Wu, Yihan Wang, Dongmian Zou, and Shixin Xu. (2026). "Mixing Configurations for Downstream Prediction." *ICML 2026*. proceedings.mlr.press/v306/wang26iz

Juntang Wang, Yihan Wang, Hao Wu, Jiayu Gao, Shixin Xu, and Dongmian Zou. (2026). "StageGuard: Physiologically Constrained Sleep Staging." *KDD 2026*. doi.org/10.1145/3770855.3818916

Juntang Wang, Yihan Wang, Hao Wu, Dongmian Zou, and Shixin Xu. (2025). "Brain-Inspired Perspective on Configurations: Unsupervised Similarity and Early Cognition." *BICS 2025 (Oral)*. doi.org/10.1007/978-981-92-3586-5_4

Shu Kit Eric Tam, Juntang Wang, Jianke Cen, Aleksandra Stryjska, Pascal Grange, and Sze Chai Kwok. (2025). "Can the mammalian circadian system adapt to the Martian photoperiod?" *18th Annual Meeting of the Chinese Neuroscience Society*.

Yihan Wang, Juntang Wang, Xinze Xu, Yihen Han, Qinyi Chen, Ghulam Hussain, and Xiawa Wang. (2025). "Analyzing temperature-induced phase transitions in $Pb_{10-x}Cu_x(PO_4)_6O$." *17th International Conference on Materials Chemistry*.

mheatmap | [GitHub] | 690+ Stars | Lead developer: a Python pkg. for proportional heatmap visualization and spectral reordering.

Experience

Graduate Research Assistant Sep 2026 – Present
McGovern Institute for Brain Research at MIT; PI: Prof. Tomaso Poggio *Cambridge, MA*
- Learning theory of deep networks: optimizers, edge of stability, learnability, compositional sparsity.

Graduate Researcher, Part-time Sep 2026 – Present
Broad Institute of MIT and Harvard; PI: Prof. Rong Ma *Boston, MA*
- Single-cell genomics, ODE modeling, random matrix theory, spectral methods.

Quantitative Researcher, Intern May 2026 – Jul 2026
Proprietary quant research firm (~$1B AUM) *Beijing, China*
- Mid/high-frequency multi-factor stock selection, alt data, deep/graph ML, infra, evaluation; 3 effective model versions.
- FToken: dual-axis stock/factor attention transformer; IC +13% over best baseline (NASDAQ).

Machine Learning Engineer, Intern Mar 2026 – May 2026
Siemens Healthineers *Shanghai, China*
- Industrial/medical LLM privacy, VLM, and multimodal AI; delivered 3 projects and 1 POC.
- Pambda: calibrated privacy-level anonymization for LLM/VLM, best utility on 5 of 6 corpora.

Undergraduate Researcher Aug 2022 – May 2026
Duke & Duke Kunshan University; PI: Profs. Shixin Xu, Dongmian Zou, Xiaobai Sun *Durham, NC; Kunshan*
- AI for science, general ML, and data mining; 5 published papers (3 as first author).
- MixConfig (ICML 2026): plug-and-play clustering inductive bias, improved results on 8 benchmarks; StageGuard (KDD 2026): physiologically constrained sleep staging, improved 6 baseline models.

Additional Information

Service: Reviewer, NeurIPS 2026; Resident Assistant at DKU, Orientation Peer at Duke, Kendo Club Training Leader
Honors: Dean's List with Distinction (Top 10%; Fall '23, Spring '24, Fall '24); Kaggle Bronze (Stanford RNA 3D Folding, Top 8%)
Skills: Python (PyTorch, scikit-learn, pandas), SQL, MATLAB, Julia, Java, Rust, C, C#, C++; Git, LaTeX, Linux/Bash, Slurm
Teaching: TA for CS 521: Graph/Network/Matrix Analysis (Graduate), MATH 302 Numerical Analysis, MATH 101 Calculus