Stanford



# Yiyu Wang

Postdoctoral Scholar, Anesthesiology, Perioperative and Pain Medicine

## Bio

### BIO

Dr. Yiyu Wang is a T32 postdoctoral researcher at the Department of Anesthesiology, Stanford School of Medicine. Her research combines computational models and neuroimaging techniques to characterize the neural architecture underlying complex human experiences in emotion and pain. Her current work focuses on leveraging deep learning, foundation models, and explainable AI to improve neuroimaging-based markers as well as multi-modal markers of chronic pain.

### PROFESSIONAL EDUCATION

- BS, University of Washington , Psychology (2017)
- PhD, Northeastern University , Psychology (2023)

### STANFORD ADVISORS

- Sean Mackey, Postdoctoral Faculty Sponsor

### LINKS

- GitHub: https://github.com/yiyuwang
- Google Scholar: https://scholar.google.com/citations?user=cTyf3IYAAAAJ&hl=en&oi=ao
- Neuromuscular Insight Lab: https://nilab.stanford.edu/
- Pain Intelligence Lab: https://painintelligencelab.stanford.edu/

## Publications

### PUBLICATIONS

- **Leveraging Natural Language Processing to Uncover Real-World Trends in Cannabis Use from Clinic Notes in Electronic Health Records**
  Falasinnu, T., Le, N., Wang, Y., Alagappan, A., Weisman, M., Irani, A., Chaichian, Y., Bozkurt, S.
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- **Patterns of Muscle Health in Single- and Multi-Site Chronic Pain: A UK Biobank Normative Modeling Study.** *medRxiv : the preprint server for health sciences*
  Kaptan, M., Wang, Y., de Boer, A., Goyal, A., Holmes, S., Ozkan, K., Bédard, S., Indriolo, T., Law, C. S., Pfyffer, D., Fundaun, J., Berhe, E., Gold, et al
  2026

- **Differential Encoding of Noxious Heat and Self-Reported Pain Along Corticospinal Networks: A Simultaneous Brain-Spinal Cord Functional Magnetic Resonance Imaging Study**
  Pfyffer, D., Wang, Y., Kaptan, M., Fundaun, J., Dildine, T., Oliva, V., Indriolo, T., Ii, K., Glover, G., Law, C., Mackey, S.

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- **Pharmacoepidemiologic Characterization of Cannabis Use and Symptomatology in Rheumatology using Natural Language Processing of Electronic Health Record Clinic Notes.** *The journal of pain*
  Falasinnu, T., Le, N., Wang, Y., Alagappan, A., Walker, A., Park, T., Leung, J., Chaichian, Y., Weisman, M., Kenney, M., Irani, A., Bozkurt, S.
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- **Differential encoding of noxious heat and self-reported pain along corticospinal networks: a simultaneous spinal cord-brain fMRI study.** *bioRxiv : the preprint server for biology*
  Pfyffer, D., Wang, Y., Kaptan, M., Fundaun, J., Dildine, T. C., Oliva, V., Indriolo, T., Skare, S., Sprenger, T., Lee, P. K., Truong, M., Weber, K. A., Glover, et al
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- **Big team science reveals promises and limitations of machine learning efforts to model physiological markers of affective experience** *ROYAL SOCIETY OPEN SCIENCE*
  Coles, N. A., Perz, B., Behnke, M., Eichstaedt, J. C., Kim, S., Vu, T. N., Raman, C., Tejada, J., Huynh, V., Zhang, G., Cui, T., Podder, S., Chavda, et al
  2025; 12 (6): 241778

- **Neural Predictors of Fear Depend on the Situation.** *The Journal of neuroscience : the official journal of the Society for Neuroscience*
  Wang, Y., Kragel, P. A., Satpute, A. B.
  2024; 44 (46)

- **A Computational Neural Model for Mapping Degenerate Neural Architectures.** *Neuroinformatics*
  Khan, Z., Wang, Y., Sennesh, E., Dy, J., Ostadabbas, S., van de Meent, J. W., Hutchinson, J. B., Satpute, A. B.
  2022; 20 (4): 965-979

- **Neural Topographic Factor Analysis for fMRI Data**
  Sennesh, E., Khan, Z., Wang, Y., Dy, J., Satpute, A., Hutchinson, J., van de Meent, J.
  edited by Larochelle, H., Ranzato, M., Hadsell, R., Balcan, M. F., Lin, H.
  NEURAL INFORMATION PROCESSING SYSTEMS (NIPS).2020

- **Neurocomputational mechanisms underlying motivated seeing.** *Nature human behaviour*
  Leong, Y. C., Hughes, B. L., Wang, Y., Zaki, J.
  2019