


## Yuanyuan Gao

Postdoctoral Scholar, Psychiatry

 NIH Biosketch available Online

 Curriculum Vitae available Online

### Bio

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#### BIO

Yuanyuan Gao completed her PhD at Rensselaer Polytechnic Institute. Her PhD thesis researched the effects of neuromodulation on human motor learning using functional near-infrared spectroscopy (fNIRS). She finished her first postdoctoral training term in Dr. David Boas' lab in Boston University on advanced fNIRS data analysis. She is now a postdoctoral fellow working at Stanford University for her second term of postdoctoral training on the clinical applications of fNIRS. Her research interests are fNIRS, its multimodels with fMRI, EEG, eye-tracker, physiology measurements, neuromodulation and machine learning models, and its applications in clinical research.

#### PROFESSIONAL EDUCATION

- Master of Engineering, High School Affiliated to Beihang University (2013)
- Doctor of Philosophy, Rensselaer Polytechnic Institute (2020)
- Bachelor of Engineering, High School Affiliated to Beihang University (2010)
- Ph.D., Rensselaer Polytechnic Institute , Mechanical Engineering (2020)
- Master, Beihang University , Mechanical Engineering (2013)
- BS, Beihang University , Aircraft Environment and Life Security Engineering (2010)

#### STANFORD ADVISORS

- Allan Reiss, Postdoctoral Faculty Sponsor

#### LINKS

- LinkedIn: <https://www.linkedin.com/in/yuanyuan-gao-21ba02182/>

### Publications

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#### PUBLICATIONS

- **How much do time-domain functional near-infrared spectroscopy (fNIRS) moments improve estimation of brain activity over traditional fNIRS?** *Neurophotonics*  
Ortega-Martinez, A., Rogers, D., Anderson, J., Farzam, P., Gao, Y., Zimmermann, B., Yucel, M. A., Boas, D. A.  
2023; 10 (1): 013504
- **Deep learning-based motion artifact removal in functional near-infrared spectroscopy** *NEUROPHOTONICS*  
Gao, Y., Chao, H., Cavuoto, L., Yan, P., Kruger, U., Norfleet, J. E., Makled, B. A., Schwaizberg, S., De, S., Intes, X.  
2022; 9 (4): 041406
- **Functional Brain Imaging Reliably Predicts Bimanual Motor Skill Performance in a Standardized Surgical Task** *IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING*

Gao, Y., Yan, P., Kruger, U., Cavuoto, L., Schwaitzberg, S., De, S., Intes, X.  
2021; 68 (7): 2058-2066

- **Decreasing the Surgical Errors by Neurostimulation of Primary Motor Cortex and the Associated Brain Activation via Neuroimaging** *FRONTIERS IN NEUROSCIENCE*

Gao, Y., Cavuoto, L., Dutta, A., Kruger, U., Yan, P., Nemani, A., Norfleet, J. E., Makled, B. A., Silvestri, J., Schwaitzberg, S., Intes, X., De, S.  
2021; 15: 651192

- **Functional brain connectivity related to surgical skill dexterity in physical and virtual simulation environments** *NEUROPHOTONICS*

Nemani, A., Kamat, A., Gao, Y., Yucel, M., Gee, D., Cooper, C., Schwaitzberg, S., Intes, X., Dutta, A., De, S.  
2021; 8 (1): 015008

- **The Effects of Transcranial Electrical Stimulation on Human Motor Functions: A Comprehensive Review of Functional Neuroimaging Studies** *FRONTIERS IN NEUROSCIENCE*

Gao, Y., Cavuoto, L., Schwaitzberg, S., Norfleet, J. E., Intes, X., De, S.  
2020; 14: 744

- **A machine learning approach to predict surgical learning curves**

Gao, Y., Kruger, U., Intes, X., Schwaitzberg, S., De, S.  
MOSBY-ELSEVIER.2020: 321-327