

Stanford



Sophie Ostmeier

Postdoctoral Scholar, Radiology

Bio

BIO

My current research is in deep neural networks that learn from multimodal clinical data including images and clinical information. I would like to combine these primary computer vision algorithms with large language models/EHR encoding models in order to integrate them into the clinical workflow, potentially as a virtual assistant.

HONORS AND AWARDS

- DFG Walter Benjamin Award (fellowship), Deutsche Forschungsgesellschaft (2023)
- DAAD RISE worldwide (fellowship), German Academic Exchange Service (2019)
- Merit Scholarship, Kurt Hahn Foundation (2013)
- Athletic Scholarship, Mercersburg Academy (2010)

PROFESSIONAL EDUCATION

- Dr. med., Technical University of Munich, Germany , Radiology (2022)
- MD, Technical University of Munich, Germany , pre-clinical and clinical studies (2021)

STANFORD ADVISORS

- Akshay Chaudhari, Postdoctoral Research Mentor
- Curtis Langlotz, Postdoctoral Faculty Sponsor

LINKS

- Google Scholar: <https://scholar.google.com/citations?user=Q2SCA-sAAAAJ&hl=en&oi=ao>
- X (twitter): <https://twitter.com/SophieOstmeier>

Research & Scholarship

LAB AFFILIATIONS

- Jeremy Heit, Heit Lab (2/1/2022)

Publications

PUBLICATIONS

- Random expert sampling for deep learning segmentation of acute ischemic stroke on non-contrast CT. *Journal of neurointerventional surgery*
Ostmeier, S., Axelrod, B., Liu, Y., Yu, Y., Jiang, B., Yuen, N., Pulli, B., Verhaaren, B. F., Kaka, H., Wintermark, M., Michel, P., Mahammedi, A., Federau, et al

2024

- **Non-inferiority of deep learning ischemic stroke segmentation on non-contrast CT within 16-hours compared to expert neuroradiologists.** *Scientific reports*
Ostmeier, S., Axelrod, B., Verhaaren, B. F., Christensen, S., Mahammedi, A., Liu, Y., Pulli, B., Li, L., Zaharchuk, G., Heit, J. J.
2023; 13 (1): 16153
- **USE-Evaluator: Performance metrics for medical image segmentation models supervised by uncertain, small or empty reference annotations in neuroimaging.** *Medical image analysis*
Ostmeier, S., Axelrod, B., Isensee, F., Bertels, J., Mlynash, M., Christensen, S., Lansberg, M. G., Albers, G. W., Sheth, R., Verhaaren, B. F., Mahammedi, A., Li, L., J., Zaharchuk, et al
2023; 90: 102927
- **Functional Outcome Prediction in Acute Ischemic Stroke Using a Fused Imaging and Clinical Deep Learning Model.** *Stroke*
Liu, Y., Yu, Y., Ouyang, J., Jiang, B., Yang, G., Ostmeier, S., Wintermark, M., Michel, P., Liebeskind, D. S., Lansberg, M. G., Albers, G. W., Zaharchuk, G.
2023
- **Prediction of delayed cerebral ischemia after cerebral aneurysm rupture using explainable machine learning approach.** *Interventional neuroradiology : journal of peritherapeutic neuroradiology, surgical procedures and related neurosciences*
Taghavi, R. M., Zhu, G., Wintermark, M., Kuraitis, G. M., Sussman, E. S., Pulli, B., Biniam, B., Ostmeier, S., Steinberg, G. K., Heit, J. J.
2023: 15910199231170411
- **Random Expert Sampling for Deep Learning Segmentation of Acute Ischemic Stroke on Non-contrast CT** *Arxiv*
Ostmeier, S.
2023
- **Iodine concentration of healthy lymph nodes of the neck, axilla and groin in Dual Energy Computed Tomography**
Ostmeier, S.
Technical University Munich.2022
- **Iodine concentration of healthy lymph nodes of neck, axilla, and groin in dual-energy computed tomography** *ACTA RADIOLOGICA*
Sauter, A. P., Ostmeier, S., Nadjiri, J., Deniffel, D., Rummeny, E. J., Pfeiffer, D.
2020; 61 (11): 1505-1511