Stanford



Yann Sakref

Postdoctoral Scholar, General Surgery

Bio

BIO

Yann Sakref is a Postdoctoral Scholar in General Surgery at Stanford University, working within the Knowlton Lab. With a passion for interdisciplinary sciences and advancing medical biotechnology and patient care, Yann is developing clinical and AI solutions as part of an ARPA-H-funded project under Dr. Knowlton's supervision. His work focuses on creating computer vision models for surgical assistance and contributing to the collaborative development of innovative tools by working closely with clinical, engineering, and AI teams. He also works closely with collaborators at the S-SPIRE Center.

PROFESSIONAL EDUCATION

- PhD, École Normale Supérieure , Physics (2023)
- Master, Sorbonne Université , Mathematics (2020)
- Master, École Normale Supérieure de Lyon , Biology (2020)

STANFORD ADVISORS

- Lisa Marie Knowlton, Postdoctoral Faculty Sponsor

Publications

PUBLICATIONS

- **Empowering surgeons with integrated synthetic data: solutions for mastering complex clinical scenarios.** *NPJ digital medicine*
  Sakref, Y., Seenivasan, L., Ding, H., Iyer, R., Venkatesh, D. K., Speidel, S., Unberath, M., Jopling, J. K., Knowlton, L. M.
  2026
- **Design principles, growth laws, and competition of minimal autocatalysts** *COMMUNICATIONS CHEMISTRY*
  Sakref, Y., Rivoire, O.
  2024; 7 (1): 239
- **On the exclusion of exponential autocatalysts by sub-exponential autocatalysts** *JOURNAL OF THEORETICAL BIOLOGY*
  Sakref, Y., Rivoire, O.
  2024; 579: 111714
- **On Kinetic Constraints That Catalysis Imposes on Elementary Processes** *JOURNAL OF PHYSICAL CHEMISTRY B*
  Sakref, Y., Munoz-Basagoitii, M., Zeravcic, Z., Rivoire, O.
  2023; 127 (51): 10950-10959