Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS
I work on the development of machine learning methods to identify structures and systems that promote high quality health care using large databases of electronic health record (EHR) metadata. I am particularly interested on leveraging EHR audit log data to understand and mitigate medical errors. Projects include:

- prediction model for physician burnout from EHR use measures
- computer vision model to define EHR use measures
- identification of inpatient medication errors using EHR audit log data
- unsupervised learning model to identify pediatric patient-centric team members from EHR audit log data
- identification of team and organizational context factors associated with medication errors using EHR audit log data

LAB AFFILIATIONS
• Daniel Tawfik (1/1/2022)

Publications

PUBLICATIONS
• Predicting Primary Care Physician Burnout From Electronic Health Record Use Measures. *Mayo Clinic proceedings*
  Tawfik, D., Bayati, M., Liu, J., Nguyen, L., Sinha, A., Kannampallil, T., Shanafelt, T., Profit, J.
  2024

PRESENTATIONS
• Identifying EHR Tasks and Inactivity Using Computer Vision - American Medical Informatics Association 2023 Annual Symposium (11/13/2023)