

Stanford



Malvika Pillai

Postdoctoral Scholar, Biomedical Informatics

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BIO

Malvika Pillai is a postdoctoral research fellow in the VA Big Data Scientist Training Enhancement Program (BD-STEP), jointly in Stanford University in Medicine (Biomedical Informatics) in the Boussard Lab and VA Palo Alto. She received her BS in Quantitative Biology and PhD in Health Informatics from the University of North Carolina at Chapel Hill. Her current work focuses on developing, evaluating, and implementing fair artificial intelligence/machine learning (AI/ML) models that can lead to high-quality, patient-centered care.

PROFESSIONAL EDUCATION

- PhD, University of North Carolina at Chapel Hill, North Carolina , Health Informatics (2022)
- BS, University of North Carolina at Chapel Hill, North Carolina , Quantitative Biology (2017)

STANFORD ADVISORS

- Tina Hernandez-Boussard, Postdoctoral Faculty Sponsor

Publications

PUBLICATIONS

- **Applying Large Language Models to Assess Quality of Care: Monitoring ADHD Medication Side Effects.** *Pediatrics*
Barnett, Y., Gunturkun, F., Pillai, M., Herrmann, J. E., Luo, I., Huffman, L. C., Feldman, H. M.
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- **Scaling equitable artificial intelligence in healthcare with machine learning operations.** *BMJ health & care informatics*
Ng, M. Y., Youssef, A., Pillai, M., Shah, V., Hernandez-Boussard, T.
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- **Improving postsurgical fall detection for older Americans using LLM-driven analysis of clinical narratives.** *medRxiv : the preprint server for health sciences*
Pillai, M., Blumke, T. L., Studnia, J., Wang, Y., Veigulis, Z. P., Ware, A. D., Hoover, P. J., Carroll, I. R., Humphreys, K., Osborne, T. F., Asch, S. M., Hernandez-Boussard, T., Curtin, et al
2024
- **Using an explainable machine learning approach to prioritize factors contributing to healthcare professionals' burnout** *JOURNAL OF INTELLIGENT INFORMATION SYSTEMS*
Pillai, M., Liu, C., Kwong, E., Kratzke, I., Charguia, N., Mazur, L., Adapa, K.
2024
- **Leveraging a Large Language Model to Assess Quality-of-Care: Monitoring ADHD Medication Side Effects.** *medRxiv : the preprint server for health sciences*
Barnett, Y., Gunturkun, F., Pillai, M., Herrmann, J. E., Luo, I., Huffman, L. C., Feldman, H. M.

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- **Patient Characteristics Associated With Phone and Video Visits at a Tele-Urgent Care Center During the Initial COVID-19 Response: Cross-Sectional Study.** *Online journal of public health informatics*
Khairat, S., John, R., Pillai, M., McDaniel, P., Edson, B.
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- **Measuring quality-of-care in treatment of young children with attention-deficit/hyperactivity disorder using pre-trained language models.** *Journal of the American Medical Informatics Association : JAMIA*
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- **Leveraging Large Language Models to Assess Medication Side Effects Documentation in Children with Attention-Deficit/Hyperactivity Disorder**
Bannett, Y., Gunturkun, F., Pillai, M., Huffman, L. C., Feldman, H. M.
LIPPINCOTT WILLIAMS & WILKINS.2024: E119
- **Augmenting Quality Assurance Measures in Treatment Review with Machine Learning in Radiation Oncology** *ADVANCES IN RADIATION ONCOLOGY*
Pillai, M., Shumway, J. W., Adapa, K., Dooley, J., McGurk, R., Mazur, L. M., Das, S. K., Chera, B. S.
2023; 8 (6): 101234
- **Toward Community-Based Natural Language Processing (CBNLP): Cocreating With Communities.** *Journal of medical Internet research*
Pillai, M., Griffin, A. C., Kronk, C. A., McCall, T.
2023; 25: e48498
- **Validation approaches for computational drug repurposing: a review.** *AMIA ... Annual Symposium proceedings. AMIA Symposium*
Pillai, M., Wu, D.
2023; 2023: 559-568
- **Recommendations for design of a mobile application to support management of anxiety and depression among Black American women.** *Frontiers in digital health*
McCall, T., Threats, M., Pillai, M., Lakdawala, A., Bolton, C. S.
2022; 4: 1028408
- **An Interpretable Machine Learning Approach to Prioritizing Factors Contributing to Clinician Burnout**
Pillai, M., Adapa, K., Foster, M., Kratzke, I., Charguia, N., Mazur, L., Ceci, M., Flesca, S., Masciari, E., Manco, G., Ras, Z. W.
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