

Stanford



Vishnu Ravi

Technology Architect, Catalyst

Bio

BIO

Vishnu Ravi is a physician, software engineer, and digital health architect focusing on creating innovative digital health solutions that support research and improve clinical care at Stanford Medicine. During his medical training, he did early work on clinical applications for conversational agents and extracting insights from unstructured health data. He has also co-founded a digital health startup, developed solutions for COVID-19 that were deployed internationally, and contributed to the first family of international mobile health data standards via the IEEE.

As the Lead Architect of the Building for Digital Health program at the Stanford Byers Center for Biodesign, Vishnu has led the development of the Stanford CardinalKit digital health framework and co-created its successor, Stanford Spezi. CardinalKit and Spezi have been used to create over 20 digital health clinical and research applications at Stanford and other leading healthcare and research institutions. Vishnu has also been an instructor for CS342/MED253, a real-world digital health app development course for Stanford computer science undergraduates and graduate students, since 2021.

Vishnu is currently the Technology Architect for Catalyst, Stanford Medicine's flagship innovation program to support inventors across the Stanford community in developing and accelerating their most promising innovations for transformative health, which spans digital health, diagnostics, and therapeutics.

CURRENT ROLE AT STANFORD

Technology Architect, Stanford Medicine Catalyst; Lead Architect, Building for Digital Health, Stanford Byers Center for Biodesign; Instructor, Stanford CS342/MED253

EDUCATION AND CERTIFICATIONS

- Board Certification, American Board of Internal Medicine
- Residency, Icahn School of Medicine at Mount Sinai
- MD, Albany Medical College
- BA, Cornell University

Publications

PUBLICATIONS

- **Comprehensive real time remote monitoring for Parkinson's disease using Quantitative DigitoGraphy.** *NPJ Parkinson's disease* Hoffman, S. L., Schmiedmayer, P., Gala, A. S., Wilkins, K. B., Parisi, L., Karjagi, S., Negi, A. S., Revlock, S., Coriz, C., Revlock, J., Ravi, V., Bronte-Stewart, H. 2024; 10 (1): 137
- **Design and Implementation of an Electronic Health Record-Integrated Hypertension Management Application.** *Journal of the American Heart Association*

Funes Hernandez, M., Babakhanian, M., Chen, T. P., Sarraju, A., Seninger, C., Ravi, V., Azizi, Z., Tooley, J., Chang, T. I., Lu, Y., Downing, N. L., Rodriguez, F., Li, et al
2024; 13 (2): e030884

- **Utility of smart watches for identifying arrhythmias in children.** *Communications medicine*
Zahedivash, A., Chubb, H., Giacone, H., Boramanand, N. K., Dubin, A. M., Trela, A., Lencioni, E., Motonaga, K. S., Goodyer, W., Navarre, B., Ravi, V., Schmiedmayer, P., Bikia, et al
2023; 3 (1): 167
- **CardinalKit: open-source standards-based, interoperable mobile development platform to help translate the promise of digital health.** *JAMIA open*
Aalami, O., Hittle, M., Ravi, V., Griffin, A., Schmiedmayer, P., Shenoy, V., Gutierrez, S., Venook, R.
2023; 6 (3): ooad044
- **Lubricin: a novel means to decrease bacterial adhesion and proliferation.** *Journal of biomedical materials research. Part A*
Aninwene, G. E., Abadian, P. N., Ravi, V., Taylor, E. N., Hall, D. M., Mei, A., Jay, G. D., Goluch, E. D., Webster, T. J.
2015; 103 (2): 451-62

PRESENTATIONS

- Conducting Digital Health Research at Stanford University Using a FHIR-Native Open-Source Mobile Application Development Framework - DMEA Connecting Digital Health
- CardinalKit: FHIR-Native Open-Source Mobile Application Development Framework for Digital Health Innovations - American Medical Informatics Association Clinical Informatics Conference 2023
- The Path to a Modular and Standards-Based Digital Health Ecosystem - IEEE-EMBS International Conference on Biomedical and Health Informatics (BHI'23) - Workshop - Unraveling Challenges in Time Series Analysis with Open Source Tools for Digital Health Applications