



Vasiliki Bikia

Postdoctoral Scholar, Biomedical Informatics

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BIO

Dr. Vasiliki Bikia is a postdoctoral researcher at the Byers Center for Biodesign, Stanford. She received her Advanced Diploma degree in Electrical and Computer Engineering from the Aristotle University of Thessaloniki (AUTH), Greece, in 2017, and her Ph.D. degree in Biomedical Engineering from the Swiss Federal Institute of Technology of Lausanne (EPFL), Switzerland, in 2021. Her Ph.D. research addressed the clinical need for providing non-invasive tools for cardiovascular monitoring leveraging machine learning and physics-based numerical modeling. In particular, she developed and tested novel healthcare algorithms for major biomarkers including central blood pressure, stroke volume, left ventricular elastance and arterial stiffness. At Stanford, she contributes to the Stanford Spezi framework, designing and prototyping the Spezi Data Pipeline tool for enhanced digital health data accessibility and analysis workflows. Her work includes exploring smartwatches for arrhythmia detection in children and integrating physical activity data for personalized care with major pharma companies.

Her research interests include health algorithms, digital biomarkers, machine learning, non-invasive monitoring, and the application of large language models for personalized healthcare, predictive analytics, and enhancing patient-clinician interactions.

STANFORD ADVISORS

- Roxana Daneshjou, Postdoctoral Faculty Sponsor

Publications

PUBLICATIONS

- **Utility of smart watches for identifying arrhythmias in children.** *Communications medicine*
Zahedivash, A., Chubb, H., Giaccone, 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
- **Arterial pulse wave modeling and analysis for vascular-age studies: a review from VascAgeNet** *AMERICAN JOURNAL OF PHYSIOLOGY-HEART AND CIRCULATORY PHYSIOLOGY*
Alastruey, J., Charlton, P. H., Bikia, V., Paliakaite, B., Hametner, B., Bruno, R., Mulder, M. P., Vennin, S., Piskin, S., Khir, A. W., Guala, A., Mayer, C. C., Mynard, et al
2023; 325 (1): H1-H29