NINR's 2025 Artificial Intelligence Bootcamp
June 2-3, 2025
Microsoft Teams (webinar)

REGISTRATION ANNOUNCEMENT

Register for NINR's 2025 Artificial Intelligence Bootcamp

The **2025 NINR Artificial Intelligence Boot Camp** will explore the impact of Artificial Intelligence (AI) on health, health research, and clinical practice. The goal of the bootcamp is to facilitate attendees' understanding of the foundational principles of AI, actionable steps to incorporate AI into their work, research and clinical applications of AI, and ethical considerations for AI adoption.

When: Monday, June 2 - Tuesday, June 3 from 10 am to 3 pm ET

Where: Virtual (through Teams Webinar)

Registration deadline: May 16, 2025

Course Objectives

- Provide an overview of Artificial Intelligence (AI) and the use of AI for promoting health and preventing disease.
- Describe steps for researchers interested in getting started in AI (e.g., defining research questions, determining data needs, forging collaborations).
- Present research and clinical applications of AI.
- Provide examples on the use of AI in addressing social determinants of health and advancing health for all.
- Discuss ethical, legal, and social implications of AI.
- Discuss values-driven and community-engaged AI adoption strategies.
- Discuss pitfalls in using AI, biases in models and algorithms, and how to address these biases.

Boot Camp Agenda
The Boot Camp will consist of two sessions:

- Day 1: Foundational concepts and principles of AI
- Day 2: Research and clinical case studies

Agenda

Day 1- June 2, 2025	
10:00 – 10:10 AM	**Welcome Remarks Speaker** Dr. Courtney Aklin
10:10 – 10:15 AM	**Overview of Bootcamp and Housekeeping items** Dr. Quynh C. Nguyen, Intramural Investigator, NINR

10:15– 10:35 AM	**Advancing AI through Nursing Research** Suzanne Bakken, PhD, RN, FAAN, FACMI, FIAHSI Alumni Professor of Nursing and Professor of Biomedical Informatics Executive Director, Center for Community-Engaged Health Informatics and Data Science Co-Director, Reducing Health Disparities Through Informatics Pre- and Post-doctoral Training Program Columbia University Editor-in-Chief, Journal of the American Medical Informatics Association
10:35– 10:55 AM	**Capturing the Patient's Voice Through AI Supported Practice** Patricia Flatley Brennan PhD, FAAN, FACMI Previously Director, National Library of Medicine Emerita Professor, School of Nursing and College of Engineering, University of Wisconsin-Madison
10:55 – 11:10 AM	**Translational AI Excellence and Applications in Medicine** Hongfang Liu, PhD *D. Bradley McWilliams Chair* *Professor, Dept of Health Data Science and Artificial Intelligence* *School of Biomedical Informatics* *Vice President of Learning Health System at UTHealth Houston* *Director of the Center for Translational AI Excellence and Applications in Medicine (TEAM-AI)*
11:10 - 11:25 AM	**Gravity Project: A National Consensus Initiative to Forge Data and Data Standards for Social Risks and Protective Factors** Sarah DeSilvey, DNP, FNP-C *Director of Clinical Informatics at The Gravity Project; Rural Family Nurse Practitioner Quality Consultant*
11:25 - 11: 40 AM	**Modeling and Measuring the Resource Consumption and Environmental Footprint of AI system** Pengfei Li *PhD Candidate in Computer Science* *University of California, Riverside*
11:40 - 12: 00 PM	**Audience Discussion and Q&A**
12:00 – 1:00 PM	**LUNCH BREAK**
1:00 – 1:15 PM	**POLL**
1:15 – 1:30 PM	**Community Participation in AI** Sheena Erete, PhD *Associate Professor, College of Information* *University of Maryland College Park*

	Associate Director of Research for the Artificial Intelligence Interdisciplinary Institute at Maryland (AIM) *Founder and director of the Community Research, Equity, and Design Collective (CREED)*
1:30 – 1: 45 PM	**Values-based & community-engaged AI adoption strategies** Katie Shilton, PhD *Professor* *University of Maryland College of Information Studies* *Director of Ethics & Values in Design (EViD) Lab* *Co-PI of the NSF and NIST-funded Institute for Trustworthy AI in Law & Society (TRAILS)* *Co-PI of UMD's Values Centered AI Initiative*
1: 45 – 2:00 PM	**Evidence-based Strategies for Clinical Research Engagement: A Case Study of Rosie the Chatbot Randomized Trial** Elizabeth M. Aparicio, PhD, MSW, LCSW-C *Associate Professor of Behavioral and Community Health, Director, Community THRIVES Lab, Deputy Director for Clinical Training & Intervention, University of Maryland Prevention Research Center, University of Maryland School of Public Health* Francia Ximena Marin Gutierrez, MSW Rosie Research Coordinator
2:00 – 2:15 PM	**Harnessing the Power of Data Through Sharing: An NIH Perspective** Maryam Zaringhalam, PhD *National Library of Medicine (NLM) Data Science & Open Science Officer, Office of Strategic Initiatives, NLM/NIH*
2:15 – 2:45 PM	**Audience Discussion and Q&A**
Adjourn	

Day 2: June 3, 2025	
10:00 – 10:10 AM	**Overview of Day 2 and Housekeeping items** Dr. Quynh C. Nguyen, Intramural Investigator, NINR
Topic 1: Using AI to Advance Social Determinants of Health Research	
10:10 – 10:25 AM	**Poll Survey/break**
10:25 – 10:40 AM	**Using Social Media Data to Investigate the Impact of Biases on Health** Thu T. Nguyen, PhD *Associate Professor of Epidemiology and Biostatistics* *Director, Big Data for Health Equity (BD4HE) Research Collaborative*

	Faculty Associate, Maryland Population Research Center *University of Maryland School of Public Health*
10:40 – 10:55 AM	**Building Rosie, the AI-powered Health Education Chatbot, for Pregnant and Parenting Moms of Color** Neha Srikanth, PhD candidate in Computer Science Heran Mane, BS Xiaohe Yue, MS *Department of Epidemiology and Biostatistics* *University of Maryland School of Public Health*
10:55 – 11:10 AM	**Barriers to Screen for Domestic Violence among Women in the Emergency Department** Azade Tabaie, PhD Data Scientist, MedStar Health Research Institute
11:10 – 11:25 AM	**Leveraging Computer Vision for Neighborhood Built Environment Research** Tolga Tasdizen, PhD *Professor of Computer and Electrical Engineering* *Scientific Computing Institute, University of Utah*
11:25 – 11:40 AM	**Digital Surveillance and Disease Forecasting to Uncover and Address Health Disparities** Yulin Hswen, ScD, MPH *Assistant Professor, Department of Epidemiology and Biostatistics* *Computational Precision Health Program* *Bakar Computational Health Institute* *University of California at San Francisco* *JAMA and JAMA Network, Associate Editor for Artificial Intelligence and Medicine*
11:40 – 12:00 PM	**Panel Discussion and Audience Q&A**
12:00 – 1:00 PM	**LUNCH BREAK**
Topic 2: AI in Clinical and Health Applications	
1:00 – 1:15 PM	**Using ML to Extract Negative Language from the EHR of Patients Undergoing Kidney Transplant Evaluations as Part of the ERASE-KD Consortium** Lili Chan, MD *Associate Professor, Medicine and Nephrology* *Icahn School of Medicine at Mount Sinai*

1:15 – 1:30 PM	**Discover overlooked complications after preeclampsia from three real-world medical record datasets of over 100,000 pregnancies** Lana Garmire, PhD *Associate Professor of Computational Medicine & Biostatistics, University of Michigan*
1:30 – 1:45 PM	**AI Bias Mitigation and Health Promotion for All** Michael Paul Cary, PhD, RN *Associate Professor and Elizabeth C. Clipp Term Chair of Nursing* *Duke University School of Nursing*
1:45 – 2:00 PM	**Machine Learning and Artificial Intelligence Research for Clinical Medical Image Processing** Sameer Antani, PhD Tenure Track Investigator, Computational Health Research Branch National Library of Medicine (NLM/NIH)
2:00 - 2:30 PM	**Panel Discussion and Audience Q&A**
2:30 – 3:00 PM	**Poll/Social networking**
Adjourn	