### Machine Learning in Medicine (MLxMed) A Virtual Seminar Series in Pittsburgh Hosted by the Department of Biomedical Informatics

Wednesday, January 26, 2022 3:00 PM – 4:00 PM Eastern Time University of Pittsburgh, UPMC, and CMU

# Artificial Intelligence in Clinical Medicine: What makes a good machine learning model for clinical applications?

Zoom <u>https://pitt.zoom.us/j/97941360439</u> (Details are listed at the end)

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**Abstract:** Although applications of Machine Learning (ML) are now pervasive in the clinical literature, ML has yet to be embraced by the clinical community. So, what constitutes a good machine learning model for clinical applications? Certainly, a necessary condition for the success of any machine learning model is that it achieves an accuracy that is superior to pre-existing methods. In the healthcare sphere, however, accuracy alone does not, nor should it, ensure that a model will gain clinical acceptance. In view of the fact that no model, in practice, has 100% accuracy, attempts to understand when a given model is likely to fail should form an important part of the evaluation of any machine learning model that will be used clinically. Moreover, the most useful clinical models are explainable in the sense that it is possible to clearly articulate why the model arrives at a particular result for a given set of inputs. In this talk I will expand upon these challenges that make the creation of clinically useful ML models particularly difficult, and discuss ways in which they can be overcome.

#### About MLxMed Seminar Series (<u>http://ml-in-medicine.org/</u>)

Medicine is complex and data-driven while discovery and decision making are increasingly enabled by machine learning. Machine learning has the potential to support, enable and improve medical discovery and clinical decision making in areas such as medical imaging, cancer diagnostics, precision medicine, clinical trials, and electronic health records. This seminar series focuses on new algorithms, real-world deployment, and future trends in machine learning in medicine. It will feature prominent investigators who are developing and applying machine learning to biomedical discovery and in clinical decision support. For more information see MLxMed website.

## Zoom Information on following page

## **Zoom Information**

### When: January 26, 2022 03:00 PM Eastern Time (US and Canada)

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