Hi Jay,

Yes, you are right of the usage ML and AI in the health imaging devices and analysis. if there is a requirement for binary image classification even a simple yet effective supervised machine learning algorithm model like Logistic Regression can be implemented to obtain appropriate image classification.

Just to generalise…

Logistic regression is simpler than modern deep learning algorithms, but simpler algorithms don't mean worse. There are many cases where logistic regression is more than enough. It also has advantages that are very significant in real cases.

The most significant advantage of logistic regression over neural networks is transparency. Neural networks work as a black box - you never know why it makes one or another decision. There are a lot of highly regulated industries where this approach is not acceptable. Logistic regression, in contrast, may be called the “white box”. You always know why you rejected a loan application or why your patient’s diagnosis looks good or bad.