**iMedCausal**

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**About Learning Causal factors of a Chosen Target**

The authors of this report predict that causal inference will continue to be a major research imperative of Artificial Intelligence. In many cases, we are interested in knowing the causal risk factors of a chosen target. For examples, in medicine, we would be interested in knowing the causal risk factors for breast cancer metastasis; In biomedicine, we would be interested in knowing the genetic risk factors that are directly responsible for Alzheimer’s disease; in clinical practice, we would be interested in knowing the treatment effect of a new drug on a particular disease. Note that cause and causal effect (the treatment effect in my occasions) go side by side. We have many existing machine learning methods that can help learn associations/correlations/dependencies between some factors and a chosen target, which is often called a class feature in machine learning, but those factors are not causal and may not have a causal influence on the chosen target. Learning the causal factors of a chosen target from data is a state-of-the-art approach for understanding the causal mechanisms, helping improve personalized prediction of the chosen target and conduct intervention efficiently and effectively.

In this category of our iMedCausal, we are currently including four methods for learning causal factors to a chosen target, while in the meantime we will continue to develop new methods on our own and search for other existing methods, to be included. The current four methods consists of MBIL <PLEASE ADD THE FULL LIST HERE, AND PLEASE ADD THE INTRODUCTION TO EACH OF THE METHODS BASED ON OUR “README” FILES”>