

Research Software for Human-AI Collaboration

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1 Introduction

We consider the problem of how to let domain experts work with machine learning systems, which requires human to understand the computer, and reversely, the computer to understand human. Specifically, when an machine learning model gives a (probabilistic) prediction for a given instance, together with a human comprehensible explanation, we would like to enable the domain expert to give feedback to the prediction and the explanations, and also to enable the machine learning model to update itself based on the feedback.

2 Task

The main task is to develop an open source Python package, which will be built upon a (prototype) implementation of the state-of-the-art decision rule method.

We are looking for a self-motivated bachelor/master student with the following requirements: 1) highly interested in developing research software; 2) the student has very strong programming skills in Python with disciplined code style; 3) willing to do code review and to write documentation; and 4) having previous experience of working on decision trees and/or rule-based models is a plus.

Students who are interested should send an email to Lincen Yang or Matthijs van Leeuwen, with your CV attached.