Description of thesis

The aim of the project is to combine fairness metrics in order to perform nuanced analyses of fairness of predictive algorithms and develop a toolkit which enables data scientists to include fairness assessment in their modelling workflow. To reach this goal we will

* Research and understand current fairness criteria along with their advantages and disadvantages
* Develop a toolkit in Python that combines several fairness measures in order to gain a nuanced and comprehensive analysis of the fairness of a predictive algorithm
* Showcase the possibilities and limitations of the toolkit on constructed examples consisting of predictive algorithms modelling simple real-world datasets and generated synthetic data
* Set up a predictive algorithm on a more comprehensive medical dataset aiming for high performance without taking fairness of the model into account
* Use the toolkit to assess the above predictive model with respect to fairness and take steps to mitigate potential issues of unfairness