



Hierarchical and Multilabel Classification of Protein Functions

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Hierarchical multi-label classification is a complex classification task where the classes involved in the problem are hierarchically structured and each example may simultaneously belong to more than one class in each hierarchical level. In this work, we present a classification method that incrementally trains a multi-layer perceptron for each level of the classification hierarchy. This approach is evaluated in the prediction gene ontology-based protein functions, which is a naturally hierarchical and multilabel classification task.

Keywords: hierarchical classification, multilabel classification, protein function prediction.