

Mixup Regularization for Histopathology Image Analysis

Description:

Deep learning methods achieve state-of-the-art performances in classification problems on histological images.

However, poor generalization of such methods is observed when training data is restricted, or when the distribution of unseen test data is too different from the training data distribution.

A regularization method called "mixup" (arxiv.org/abs/1710.09412) consists in mixing-up training images and labels in order to improve the robustness of the trained models.

The proposed project aims at implementing a convolutional network, designing relevant training procedures and evaluating the mixup regularization method on a given benchmark dataset.

Requirement:

Python, Deep Learning, Linear Algebra

Supervisor(s):

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