[Learning notes] Deep features for Breast Cancer Histopathological Image Classification.

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Goal: present an evaluation of "DeCaf" features for Breast Cancer recognition (image classificati

Results: it's better than ① the use of traditional feature descriptions
② task-special CNNs in some cases.

Dataset: Breast Cancer → Break+is

History: (use the same dataset)

1. Current state-of-the-art results on breast cancer recognition (image classification).
   1. paper[3], 6 feature descriptors/hand-craft features + 4 ML classifiers
   2. [4]: CNNs use 'random-patches trick" to "enlarge" the dataset.
      [5]: independent of magnificantes.

   → shortcomes: require long-train-tim

2. DeCaf. [7] - [12].
   traditional CNNs: a pre-trained CNN is simply reused as feature extractor, the output of which is fed into another classifier, trained on problem-specific data.

   DeCaf: passing the input image through a feed-forward step, using the outputs of a given layer of the network as input for the classifier.