#  Breast Cancer Diagnosis using a Neural Network

**Abstract:**

 This work presents a neural network used to diagnosis patients with benign or malignant breast cancer. The study is carried out using the Breast Cancer Wisconsin dataset. To solve the problem a feedforward neural network (NN) with multilayers was used. In the work, the implementation was made in Python, using two different libraries (sklearn and keras). Experimental results were obtained by performing simulations in both developed applications, and the performance of the neural classifier was evaluated through the performance measures of the classification systems and the ROC curve. The results were promising, since the NN was able to discriminate with high accuracy the two separable sets discriminating the benign or malignant tumor patients.