TTP Prediction Functions Documentation

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Requirements:

* MATLAB
* MATLAB Statistics and Machine Learning Toolbox

**TTP\_train(file\_path)**

Variable Inputs:

1. File\_ path is the path to an “xlsx” file with the following formatting criteria:

% 1 Row Header With Variable Names, each column is a feature

% Each row is a patient's data

% Column 1 is TTP

% Column 2 is Response Status (0 or 1)

% All variables are numerical (i.e. categorical variables converted to

% numbers

An example training data file with proper formatting is included (“regression\_file\_train\_data”)

Function Output:

This function will save model attributes (classification features and model coefficients, responder/non-responder features and coefficients) to a .mat file called “trained\_model.mat”, which is used by the TTP\_runmodel function to run the model

**TTP\_runmodel(file\_path)**

Variable Inputs:

1. File\_ path is the path to an “xlsx” file with the following formatting criteria:

% 1 Row Header With Variable Names, each column is a feature

% Each row is a patient's data

% FEATURES MUST BE IN THE SAME ORDER AS THE DATA PROVIDED FOR TRAINING

% All variables are numerical (i.e. categorical variables converted to

% numbers

Note that this .xlsx file looks identical to the one used for training, but the first two columns (TTP and Response Classification) are missing. The model will figure these out on its own. An example test data file with proper formatting is included (“regression\_file\_test\_data”)

Function Output:

This function will output a table with Response Prediction and TTP prediction for each patient

* Response Classification
  + 0 = Responder
  + 1 = Non-Responder
* TTP is given in weeks