21CS644 – Machine Learning

Heart Attack Prediction Analysis

Data-Set Description

1.] Variable definitions in the Dataset:

* Age: Age of the patient
* Sex: Sex of the patient
* exang: exercise induced angina (1 = yes; 0 = no)
* ca: number of major vessels (0-3)
* cp: Chest Pain type chest pain type

1. Value 1: typical angina
2. Value 2: atypical angina
3. Value 3: non-anginal pain
4. Value 4: asymptomatic

* trtbps: resting blood pressure (in mm Hg)
* chol: cholestoral in mg/dl fetched via BMI sensor
* fbs: (fasting blood sugar > 120 mg/dl) (1 = true; 0 = false)
* rest\_ecg: resting electrocardiographic results

1. Value 0: normal
2. Value 1: having ST-T wave abnormality (T wave inversions and/or ST elevation or depression of > 0.05 mV)
3. Value 2: showing probable or definite left ventricular hypertrophy by Estes' criteria

* thalach: maximum heart rate achieved.
* target: 0= less chance of heart attack 1= more chance of heart attack.

2.] Additional Variable Descriptions to help us:

* age - age in years
* sex - sex (1 = male; 0 = female)
* cp - chest pain type (1 = typical angina; 2 = atypical angina; 3 = non-anginal pain; 0 = asymptomatic)
* trestbps - resting blood pressure (in mm Hg on admission to the hospital)
* chol - serum cholestoral in mg/dl
* fbs - fasting blood sugar > 120 mg/dl (1 = true; 0 = false)
* restecg - resting electrocardiographic results (1 = normal; 2 = having ST-T wave abnormality; 0 = hypertrophy)
* thalach - maximum heart rate achieved
* exang - exercise induced angina (1 = yes; 0 = no)
* oldpeak - ST depression induced by exercise relative to rest
* slope - the slope of the peak exercise ST segment (2 = upsloping; 1 = flat; 0 = downsloping)
* ca - number of major vessels (0-3) colored by flourosopy
* thal - 2 = normal; 1 = fixed defect; 3 = reversable defect
* num - the predicted attribute - diagnosis of heart disease (angiographic disease status) (Value 0 = < diameter narrowing; Value 1 = > 50% diameter narrowing).