CCNU-UOW
CSCI964 Computational Intelligence
Spring 2020

Laboratory Exercise 7 (Week 7)

1 Classification Task: Car Evaluation

Please build up classification model to evaluate cars according to the following concept structure:

CAR Evaluation: car acceptability

1) PRICE overall price
   a. buying buying price
   b. maint price of the maintenance
2) TECH technical characteristics
   a. doors number of doors
   b. persons capacity in terms of persons to carry
   c. lug_boot the size of luggage boot
   d. safety estimated safety of the car

Input attributes are printed in lowercase. Besides the target concept (CAR), the model includes three intermediate concepts: PRICE, TECH, COMFORT. Every concept is in the original model related to its lower level descendants by a set of examples.

Attribute Information:

Class Values:

unacc, acc, good, vgood

Attributes:

buying: vhigh, high, med, low.
maint: vhigh, high, med, low.
doors: 2, 3, 4, 5more.
persons: 2, 4, more.
lug_boot: small, med, big.
safety: low, med, high.

Requirements:

1. Firstly divide the whole dateset into 8:2 randomly. (80% for training, 20% for testing)
2. Try to build up the optimized classification model. (you can try grid search for model parameters optimization)