

### **Tutorial 3**

In this tutorial you will learn how to use regression models to predict different attributes. By the end of this tutorial you will be able to train and test different regression models using “lm” package in R.

#### I) Linear Regression with one variable:

1. **[Pre-lab]** Load the age-height prediction training and test datasets
2. Plot the datasets
3. Learn a model using “lm” package in R
4. Print summary of the model
5. Plot the fitting function over the training data
6. Make predictions on test samples
7. Print the gold label results and predicted results

#### II) Linear Regression with multiple variables:

1. **[Pre-lab]** Load the housing prices training and test dataset
2. Plot the data set for each variable
3. Learn a model using “lm” package in R without feature scaling
4. Print summary of the model
5. Plot the fitting function over the training data
6. Make predictions on test samples using no feature scaling
7. Print the gold label results and predicted results
8. Repeat steps 3 to 6 with feature scaling
9. Compare both models

**Hand in:** Provide the summary of both models (only for the housing prices example) and briefly explain their differences.

