

Multivariate Data Analysis Assignment 3

Multiple linear regression & logistic regression

1 **Perform** multiple regression analysis using **MASS** package **birthwt** data.

1.1 Proceed with preprocessing for categorical variables

1.2 Identify (multiply) multicollinearity through the way you use it

1.3 Determine if the data follows normal distribution (visualization progress)

1.4 Fit the model (place bwt, birth weight, y)

Describe

1.5 Plot the actual y-value (y-axis) and the forecast y-value (x-axis).

1.6 Calculate RMSE, MAE, and MAPE of fitting model.

2 Perform logistic regression using **Titanic's built-in data** .

2.1 Find the optimal variable using the variable selection method.

2.2 Logistic regression using the above variables The ACC

Accuracy) Search for the optimum cutoff (0.1 to 0.9) 0.1

At intervals).

2.3 The TPR, precision, TNR, ACC,
Get BCR, F1.