

GEOG 489: PROGRAMMING FOR GIS

QUIZ 9

Generate 50 random training samples and 50 random testing samples from tahoe_highrez.tif (data from lecture 21/also in this quiz). Use the training data to build a linear regression model between **Lidar tree height** (response variable) and tahoe_highrez.tif raster image index **tahoe_highrez.1/tahoe_highrez.2** (independent variable). Use the testing data to calculate the correlation coefficient between estimated tree height (from the constructed linear regression model) and observed tree height.

Hint: lecture 21 includes the linear regression analysis between Lidar tree height and NDVI. Instead of NDVI, this quiz will use the ratio index tahoe_highrez.1/tahoe_highrez.2 (first layer/second layer) of tahoe_highrez.tif as the independent variable.