

Linear Regression

[New Attempt](#)

Due Feb 6 by 11:59pm **Points** 5 **Submitting** a file upload **Attempts** 1
Allowed Attempts 2

Using the attached dataset to develop, train, and evaluate a group of linear regression models to predict the price (dependent variable) of a Monet painting from a few of its features (independent variables). Create your model in Python.

Tasks: 1. Create at least two simple linear regression models, each of them has one different independent variable (you may transform the raw independent variable into different formats, such as to conduct a logarithmic transformation or combine two variables into a new variable such as Size = width * height). You may consider one variable as Size, and another one as Width. Create a scatter plot for showing the relationship between the independent variable and the dependent variable for each model, and also showing the linear regression line in the same plot. Calculate the error of the prediction with test data.

2. Create a multivariate linear regression model. You may need to consider the normalization of the raw data. Calculate the error of the prediction with test data.

Dataset: [monet.csv](#)  (https://unt.instructure.com/courses/63454/files/15277186/download?download_frd=1)

Submit your code, test results including visualizations, and report.