

TensorFlow EDA and Linear Regression Tutorial Outline

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 - a) What is TensorFlow?
 - i) Reference: <https://www.tensorflow.org/about/bib>
 - b) What is EDA?
 - i) Reference: <https://www.itl.nist.gov/div898/handbook/eda/section1/eda11.htm>
 - c) What is Linear Regression?
 - i) Reference: <https://www.statisticssolutions.com/what-is-linear-regression/>
 - d) How are we going to use both TensorFlow and EDA to do Linear Regression?
- 2) EDA
 - a) How EDA works, and how we are going to implement it
 - b) Common practices of EDA
 - i) Reference: http://www.creative-wisdom.com/teaching/551/Reading_materials/Yu_EDA_Oxford.pdf
 - c) Useful EDA programming language tools
 - i) Python Pandas
 - (1) Reference: <https://pandas.pydata.org/>
 - d) Why EDA is useful and things we need to look out for
 - i) Reference: <https://towardsdatascience.com/exploratory-data-analysis-8fc1cb20fd15>
- 3) Linear Regression
 - a) Understanding general concept of what Linear Regression is
 - i) Reference: <http://www.stat.yale.edu/Courses/1997-98/101/linreg.htm>
 - b) How we are going to use it for prediction
 - i) Reference: <http://onlinestatbook.com/2/regression/intro.html>
 - c) Choosing parameters
- 4) Data: Hartford Connecticut Education Data
 - a) Introduce dataset we will be using
 - b) Discuss possible errors with the data
 - c) Understand how we are going to use the data for prediction

Tutorial:

- 1) Data and EDA
 - a) Load data with Python Pandas
 - b) Use EDA techniques to find relevant information

- c) Choose what variable we want to predict
 - d) Figure out what part of our data we are going to train
- 2) Create a linear regression model using tensorflow
 - a) Import libraries and explain
 - b) Choose train and test data
 - c) Fit our linear model
 - d) Make predictions on training data
 - e) Check accuracy with test data

Conclusion:

- 1) What did we learn?
- 2) Summary
- 3) Works Cited