

Microsoft: DAT210x Programming with Python for Data Science

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## Video

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## **Transformations**

samples in your dataset.

To be honest, you've actually



they're actually performed right before you start modeling.

► 1:30 / 1:30 → 1.25x → HD 🛣 🚾 😘

order to help clean up your data and then just pass it along.

process in

Video

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Your goal during the data gathering phase is to record as much working data about your observations as possible since you never know which feature is going to end up being the golden one that allows your machine learning algorithm to succeed. Due to this, there are usually a few redundant or even poor features in your dataset. Think back to those long

word problems in grade school that were essentially a simple math question, but came filled with red herrings to throw you off; feeding an unfiltered soup of features to your machine learning algorithms is pretty similar to trying to get it to solve those word problems.

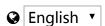
To be effective, many machine learning algorithms need the data passed to them be discerning, discriminating and independent. In this module, you're going to discover methods to get your data behaving like that using *transformers*. This will help improve your own knowledge of your data, as well as improve your machine learning algorithms' performance.

A transformer is any algorithm you apply to your dataset that changes either the feature count or feature values, but does not alter the number of observations. You can use transformers to mung your data as a pre-processing step to clean it up before it's fed to other algorithms. Another popular transformer use is that of dimensionality reduction, where the number of features in your dataset is intelligently reduced to a subset of the original.

Once you've used a few basic transformers, you will also learn about some data cleansing techniques that attempt to rectify problematic observations.

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