



Microsoft: DAT210x Programming with Python for Data Science



Bookmarks

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► 1. The Big Picture

▼ 2. Data And Features

Lecture: Features Premiere
Quiz Lecture: Determining
Features
Quiz Lecture: Manipulating Data
Quiz Lecture: Feature
Representation
Quiz Lecture: Wrangling Data
Quiz Lab: Data and Features
Lab

Dive Deeper

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Bookmark

Dive Deeper

With a problem in mind you want to solve using machine learning, you started this section by learning about what features are, the different types of features, how to come up with useful features, and how to perform basic dataset manipulation. All of these tasks and skills will help you along in the **collecting** phase of the data analysis process.

You then proceeded to learn about how to perform some basic operations to clean up your data, such as nan and duplicate removal. These fall into the **wrangling** phase of the analysis process. Lastly, you studied how to properly encode your features in a manner most suited for machine learning. Although something you would want to handle as a pre-processing step during collection, technically, this actually falls into the **transforming** phase of the analysis processing. Even though the course map we provided has unidirectional arrows, there's no hard flow and you can jump around the different phases of your analysis.

Now that your dataset is packed with data, you're just about ready to start exploring it at a much deeper and more interactive level. If you'd like, take a peek through these awesome resources to ensure you have all of the important concepts from this module covered.

Pandas

- Tutorials
- Cookbooks

- ▶ 3. Exploring Data
- ▶ 4. Transforming Data
- ▶ 5. Data Modeling

- 39 Data Wrangling Techniques

How to Select Good Features?

- An Introduction to Feature Selection
- Jeff Howbert Intro to Machine Learning / Feature Creation
- Andrew Ng - Advice for Applying Machine Learning

Where to Find Good / Free Datasets?

- Data.gov
- UCI ML Datasets (Mirror)
- Quora Answers

SciKit-Stuff

- List of SciKits (In addition to SciKit-Learn)
- Sparse Matrix Conversions For Binary Datasets

Feature Extraction

- SciKit-Learn Feature Extraction
- Audio Feature Extraction (Many Methods)



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