

Learn Data Science



Welcome!

- Welcome fellow data scientists!

Agenda

- What is Data Science?
 - Visualization
 - Data Management
 - Machine Learning
- Course Options
 - Coursera
 - edX
- Preferences?

What is data science?

- Data science (as far as I know):
 - Visualization of data
 - Management of data
 - Machine learning using data
- Let's use Iris data set as an example...

Iris Example



Iris virginica

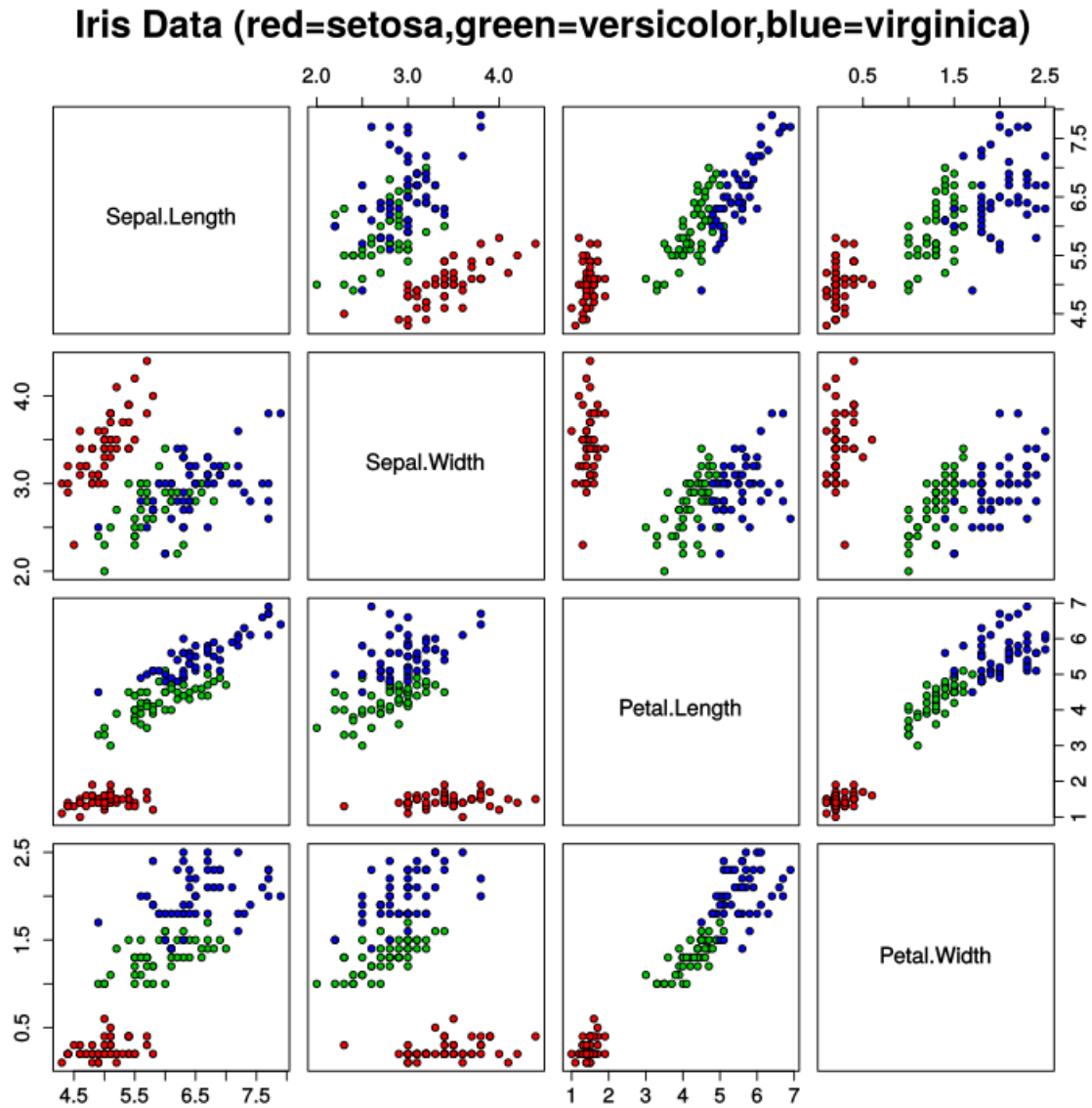


Iris versicolor



Iris setosa

Example of Visualization



Example of Data Management

Fisher's Iris Data [hide]

Dataset Order ↕	Sepal length ↕	Sepal width ↕	Petal length ↕	Petal width ↕	Species ↕
1	5.1	3.5	1.4	0.2	<i>I. setosa</i>
2	4.9	3.0	1.4	0.2	<i>I. setosa</i>
3	4.7	3.2	1.3	0.2	<i>I. setosa</i>
4	4.6	3.1	1.5	0.2	<i>I. setosa</i>
5	5.0	3.6	1.4	0.3	<i>I. setosa</i>
6	5.4	3.9	1.7	0.4	<i>I. setosa</i>
7	4.6	3.4	1.4	0.3	<i>I. setosa</i>
8	5.0	3.4	1.5	0.2	<i>I. setosa</i>
9	4.4	2.9	1.4	0.2	<i>I. setosa</i>
10	4.9	3.1	1.5	0.1	<i>I. setosa</i>
11	5.4	3.7	1.5	0.2	<i>I. setosa</i>
12	4.8	3.4	1.6	0.2	<i>I. setosa</i>
13	4.8	3.0	1.4	0.1	<i>I. setosa</i>
14	4.3	3.0	1.1	0.1	<i>I. setosa</i>
15	5.8	4.0	1.2	0.2	<i>I. setosa</i>
16	5.7	4.4	1.5	0.4	<i>I. setosa</i>
17	5.4	3.9	1.3	0.4	<i>I. setosa</i>
18	5.1	3.5	1.4	0.3	<i>I. setosa</i>
19	5.7	3.8	1.7	0.3	<i>I. setosa</i>
20	5.1	3.8	1.5	0.3	<i>I. setosa</i>
21	5.4	3.4	1.7	0.2	<i>I. setosa</i>
22	5.1	3.7	1.5	0.4	<i>I. setosa</i>
23	4.6	3.6	1.0	0.2	<i>I. setosa</i>
24	5.1	3.3	1.7	0.5	<i>I. setosa</i>
25	4.8	3.4	1.9	0.2	<i>I. setosa</i>
26	5.0	3.0	1.6	0.2	<i>I. setosa</i>
27	5.0	3.4	1.6	0.4	<i>I. setosa</i>

Example of Machine Learning

- Train an algorithm to determine species of a new flower, given some information

Course Options: Coursera

- Coursera (50+ hrs)
 - Less math, depth
 - More toolkit, examples, projects
 - Octave/MATLAB
 - Data science “degree”:
 - <https://www.coursera.org/specializations/jhu-data-science>
 - Machine learning course:
 - <https://www.coursera.org/learn/machine-learning/>

Course Options: edX

- edX (80+ hrs)
 - More math, depth
 - Less toolkit, examples, projects
 - Python
 - Data science “degree”:
 - <https://www.edx.org/micromasters/data-science>
 - Machine learning course:
 - <https://www.edx.org/course/machine-learning-fundamentals>

Preferences?

- Coursera?
- edX?
- Both?
- Other?
 - Coursera?