

Introduction to Pandas

BILD 62

Objectives for today

Create & manipulatePandas dataframes

Pandas is a useful module that creates "data frames"

- great for real-world, heterogeneous data
- similar to Excel spreadsheets (but way faster!)
- "numpy with labels"
- Smartly deals with missing data

Numpy:

| | 0 | 1 | 2 |
|---|---|---|---|
| 0 | | | |
| 1 | | | |
| 2 | | | |

Pandas:

| | Height | Weight | Age |
|----------|--------|--------|-----|
| Amy | | | |
| Brad | | | |
| Caroline | | | |

Useful Pandas methods

```
df.mean()Returns the mean of all columns
df.corr()Returns the correlation between columns in a data frame
df.count()Returns the number of non-null values in each data frame column
df.max()Returns the highest value in each column
df.min()Returns the lowest value in each column
df.median()Returns the median of each column
df.std()Returns the standard deviation of each column
```

For more useful functions, see <u>this overview</u>.

Let's dig in!

Resources

A Quick Introduction to the "Pandas" Python Library

<u>10 minutes to pandas — pandas 1.0.5 documentation</u>

Python Data Science with pandas