

## Python Learning

### \* Data Handling Basics

- Filter and select data
- using pandas and NumPy

↓  
DataFrame, Series

- Retrieve data

→ Treat missing value

- Check what is missing → `df.isnull()`
- Fill the missing value → `df.fillna(0)` (fill 0)

↳ `df.fillna(0:0.1, 5:1.25)` (fill specific range)  
↳ `df.fillna(method='ffill')` (forward fill)

- Count missing value

`df.isnull().sum()`

→ Filtering out missing value → `df.dropna()`

↳ `df.dropna(how='all')` → drop if all missing

→ Remove duplicates

`df.duplicated()` → display true for duplicates

`df.drop_duplicates()` → remove duplicates

`df.drop_duplicates(['col_name'])` → specific col

→ concatenating data

`pd.concat([df1, df2], axis=1)`

↳ append

→ dropping data

`pd.drop([0, 2], axis=1)`

→ padding data

`pd.join(df1, df2, column)`

`pd.append`

→ sort data

`df.sort_values(by=[5], ascending=False)`

→ data grouping and aggregating

`df.groupby([df.colname])`