





Training

specifically not



Training data  
(many samples)



No cancer



Has cancer



Training



Untrained estimator

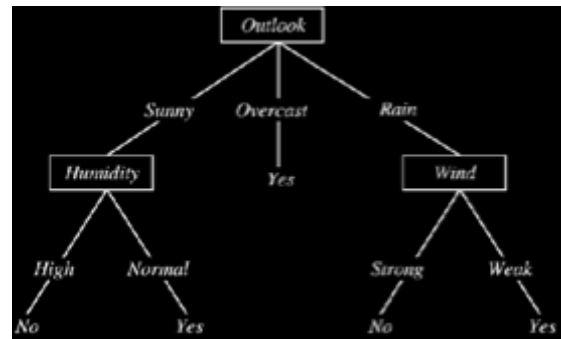


Predictor



No cancer

<https://github.com/stsievirtalks>



```
from sklearn.linear_model import LogisticRegression

estimator = LogisticRegression(
    penalty="l1",
    tol=1e-8,
    C=0.1,
    solver="saga",
)
```

# Training

```
estimator.fit(X_train, y_train)  
estimator.score(X_test, y_test)
```





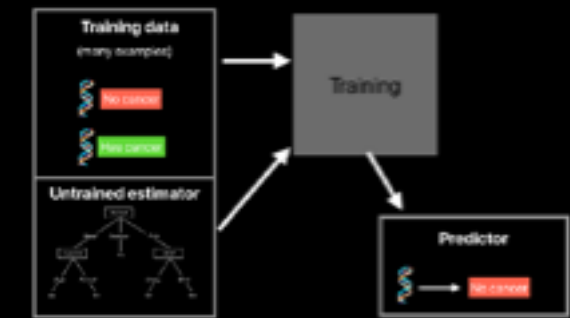
```
from keras.models import Sequential
from keras.layers import Dense

model = Sequential()
model.add(Dense(10, activation='softmax'))

model.compile(
    loss=keras.losses.categorical_crossentropy,
    optimizer=keras.optimizers.Adadelta()
)

model.fit(x_train, y_train)
score = model.evaluate(x_test, y_test)
```

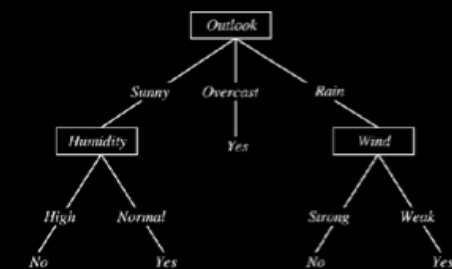
# What will I talk about?



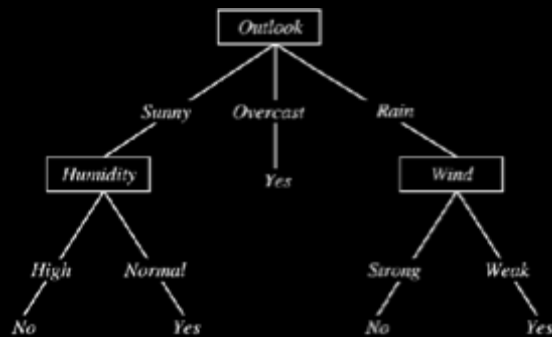
Software required for **Training**, not the math required

...and **specifically not** software required for

## Untrained estimator



## Untrained estimator



## Training

```
from sklearn.linear_model import  
  
estimator = LogisticRegression(  
    penalty="l1",  
    tol=1e-8,  
    C=0.1,  
    solver="saga",  
)
```

```
estimator.fit(X_train, y_train)  
estimator.score(X_test, y_test)
```

```
from keras.models import Sequential  
from keras.layers import Dense  
  
model = Sequential()  
model.add(Dense(10, activation='relu'))  
  
model.compile(  
    loss=keras.losses.categorical_crossentropy,  
    optimizer=keras.optimizers.Adam()  
)
```

```
model.fit(x_train, y_train)  
score = model.evaluate(x_test, y_test)
```

Every library has wrappers to create models easily.

