

# Social Data Science: Machine Learning & Econometrics

Exercise class 5

January 31, 2020

## Today's quick warmup

**Q:** Write a function that adds an arbitrary  $n$  numbers together. Your function should obey the signature

```
add(1,1)
>>> 2
add(1,1,1,1)
>>> 4
add(1,1,1,1,1, 1,1,1,1,1, 1,1,1,1,1,
    1,1,1,1,1, 1,1,1,1,1, 1,1,1,1,1)
>>> 30
```

**Bonus:** write a function that greets people with custom greetings, i.e.

```
greet(hello='kristian')
>>> 'hello kristian!'
greet(hello='kristian', hi='peter')
>>> 'hello kristian and hi peter!'
```

# Today's quick warmup - solution

Use `*args` !

```
def add(*args):  
    return sum(args)
```

- ▶ The `*` implies an arbitrary number of *unnamed* arguments.
- ▶ `**` implies an arbitrary number of *named* arguments, and helps solve the bonus question

```
def greet(**kwargs):  
    msg = ' and '.join([f'{k} {v}' for k,v in kwargs.items()])  
    print(msg + '!')
```