
hoft Documentation

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Francis Horsman

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Decorators that can be used to analyse a function's positional, keyword and default arguments.

HOF uses **getargspec** and **getcallargs** (from the [inspect](#) module) under the hood.

The params are then passed directly to the decorated function and any exceptions are propagated back to the caller.

CHAPTER 1

Use case

1. Used in conjunction with a parameter checking and validation library to perform parameter validation prior to function execution.

```
from hoft import analyse_sig, IGNORE
from certifiable import certify_int, certify_string
...

@analyse_sig(certify_int(min_value=-100, max_value=100), IGNORE, c=IGNORE, d=certify_
↳string(max_length=2))
def my_function(a, b, c=None, d=None, e='world'):
    ...

>>> my_function(-256, 'x', 'y', 'abcd')
Traceback (most recent call last):
...
CertifierError: .....
```


CHAPTER 2

Simple example

```
from hoft import analyse_sig, IGNORE

def func(arg_name, arg_index, arg_value, default_value=None):
    # do my thing and potentially raise an exception here
    if arg_name == 'a':
        assert arg_index==0
        assert arg_value==5
    elif arg_name == 'd':
        assert arg_index==2
        assert called_with_value==7
        assert default_value==None

    ...
    raise MyError(value)

...

@analyse_sig(func, IGNORE, c=IGNORE, d=func)
def my_function(a, b, c=None, d=None, e='world'):
    ...

# call the decorated method, and the arguments will be checked prior to my_function_
↳ execution:
my_function(5, 6, c=7, d=8)

# my_function is called as expected and receives: a=5, b=6, c=7, d=8, e='world'
```


CHAPTER 3

Helpful utilities

`sigs` contains functions to extract a useful signature and signature components from an `argspec`.

CHAPTER 4

To install

```
$ pip install hoft
```


CHAPTER 5

Contributions

Fork me and create a pull request!

All contributions or suggestions welcome :)

Coding guidelines in the next version.

CHAPTER 6

Indices and tables

- `genindex`
- `modindex`
- `search`