Python Documentation Numpy Doc

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1 Numpy Doc Documentation Guide

Go to the **RMD**, **PDF**, or **HTML** version of this file. Go back to fan's Python Code Examples Repository (bookdown site).

- sphinxcontrib-napoleon examples.
- numpydoc examples.
- Documenting Python APIs with docstrings

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1.1 Parameters

Check types:

```
print(type(111))
print(type('111'))
import logging
print(type(logging.WARNING))
```

Style 1:

```
Parameters
-----
n: int
The upper limit of the range to generate, from 0 to `n` - 1.

param1: int
The first parameter.

param1: str
Description of `param1`.

msg: str
Human readable string describing the exception.

param1: int
The first parameter.

param2: str
```

```
The second parameter.

param3 : str, optional

The second parameter.

param5: dict

A dictionary
```

Style 2, this will add a link to the types in python doc:

```
Parameters
------
param2::obj:`str`, optional
   The second parameter.
code::obj:`int`, optional
   Numeric error code.
param3::obj:`int`, optional
   Description of `param3`.
param4::obj:`list` of :obj:`str`
   Description of `param2`. Multiple
   lines are supported.
```

For args and kwargs:

```
Parameters
-----
*args
Variable length argument list.
**kwargs
Arbitrary keyword arguments.
```

1.2 Returns

```
Returns
-----
numpy.array of shape (1, it_draws)
A vector of sorted or unsorted random grid points, or equi-quantile points.
```

```
Returns
-----
None
```

1.3 Examples

Array outputs.

```
Examples
------
>>> fl_mu = 0
>>> fl_sd = 1
>>> it_draws = 5
>>> it_seed = 123
>>> fl_lower_sd = -1
>>> fl_higher_sd = 0.8
>>> it_draw_type = 0
>>> ar_draw_random_normal(fl_mu, fl_sd, it_draws,
```

```
it_seed, it_draw_type,
. . .
                          fl_lower_sd, fl_higher_sd)
                          0.2829785 - 1. - 0.57860025]
[-1.
              0.8
>>> it_draw_type = 1
>>> ar_draw_random_normal(fl_mu, fl_sd, it_draws,
                          it_seed, it_draw_type,
                          fl_lower_sd, fl_higher_sd)
. . .
[-1. - 0.47883617 - 0.06672597 \ 0.3338994 \ 0.8]
>>> it_draw_type = 2
>>> ar_draw_random_normal(fl_mu, fl_sd, it_draws,
                          it_seed, it_draw_type,
                          fl_lower_sd, fl_higher_sd)
[-1. - 1. - 0.57860025 0.2829785 0.8]
```

String outputs.

Examples

```
>>> log_vig_start(spt_root = proj_sys_sup.main_directory(),
... main_folder_name='logvig', sub_folder_name='parameters',
... subsub_folder_name='combo_type',
... file_name='fs_gen_combo_type',
... it_time_format=8, log_level=logging.INFO)
C:\\Users\\fan\\logvig\\parameters\\combo_type\\fs_gen_combo_type_20201030.log.py
```