
buckets Documentation

Release 0.0.1

Robert Yi

Oct 01, 2018

Contents:

1	License	1
2	buckets	3
2.1	buckets package	3
3	buckets	5
4	Indices and tables	7
	Python Module Index	9

CHAPTER 1

License

This is my license.

2.1 buckets package

2.1.1 Submodules

2.1.2 buckets.bin_data module

`buckets.bin_data.bin_n(x, y, n)`

Bins the input data x into ‘ n ’ bins and calculates the mean of y in those bins. Each bin contains the same number of elements.

Parameters

- **x** (*array-like*) – x value to bin y value data by.
- **y** (*array-like*) – y value to average over each x bin.
- **n** (*int*) – Number of elements to include in each bin.

Returns

- **X** (*np.array*) – Bin centers.
- **Y** (*np.array*) – Average values of y in each bin.
- **S** (*np.array*) – Standard deviation of y in each bin.
- **Sm** (*np.array*) – Standard error of y in each bin.

`buckets.bin_data.bin_x(x, y, gx)`

Bins the input data x into centers at gx and calculates the mean of y in those bins.

Parameters

- **x** (*array-like*) – x value to bin y value data by.
- **y** (*array-like*) – y value to average over each x bin.
- **gx** (*array-like*) – Bin centers over which to calculate averages of y .

Returns

- **bin_means** (*np.array*) – Mean of y in each bin.
- **bin_std** (*np.array*) – Standard deviation of y in each bin.
- **N** (*np.array*) – Number of elements in each bin.

`buckets.bin_data.standardarray(x)`

Make sure an array is a `np.array` object.

Parameters *x* (*array-like*) – Array-like object to turn into a numpy array.

Returns *x* – Converted array.

Return type `np.array`

2.1.3 Module contents

Some better binning schemes for data visualization.

Usage

To install, clone the library into a local repo, then run *pip install .* within the directory.

bin_n allows for binning with an equal number of elements in each bin. To use:

```
““ from buckets import bin_n
```

```
X, Y, S, Sm = bin_n(x, y, n)
```

```
““
```


CHAPTER 4

Indices and tables

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

b

`buckets`, 4

`buckets.bin_data`, 3

B

`bin_n()` (in module `buckets.bin_data`), 3

`bin_x()` (in module `buckets.bin_data`), 3

`buckets` (module), 4

`buckets.bin_data` (module), 3

S

`standardarray()` (in module `buckets.bin_data`), 4