

1 Python Quiz

random	Random integer between 2 and 20
numpy	array of 30 points from 0 to 10
numpy: distribu- tion	30 points sampled from a gaussian dist with mean 0
	30 points sampled from uniform dist between $[0, 1)$
	get max of numpy array x
	get max of each row of numpy array x
	Simulate 500 coin "fair" coin tosses (where the probability of getting Heads is 50%, or 0.5)
	Repeat the previous simulation 500 times
	Generate a random integer between $[0, 3]$, n times
pandas: dataframes	Remove rows from df where certain column has missing data
	Convert df column to type int
	Create a histogram from a dataframe column without matplotlib
	rescale the x-axis of plot to be logarithmic
	Create scatter plot of 2 df columns and set transparency to check density
	Set x axis limits
	Square the elements in a list via a list comprehension
	Add 2 numpy arrays together (they're vectorized)
	How find index of a certain element of a list? e.g. a list called planets, which have string elements corresponding to planets
	Check if variable is of int type
	Combine corresponding elements of 2 lists (of equal length) into new list which is a list of tuples
	What does enumerate do?
	How would you iterate over a list of integers upto N

example of above

Dictionaries give an example dictionary definition

get items of dictionary as a list

get values of dictionary as a list

given two lists, say **keys**, and **values** create a dictionary,
where each (key,value) is now an item pair

Strings join list of words with ','

Error How to catch errors

handling

iterators what's the difference between dict.items and
dict.iteritems if you use either in a loop

Lambda Write a lambda function that takes 2 numbers and re-
fns turns the sum

Suppose you had a list of tuples, called topfreq, where ev-
ery item was a (word, freq) pair how would you plot a bar
chart using matplotlib of the words and the frequency?

Loops Give an example of iterating over elements of a list

Give an example of iterating over the indices of a list

Give an example of iterating over both elements and in-
dices of list