deeplearning.ai

Basics of Neural Network Programming

A note on python/ numpy vectors

Python Demo

Python / numpy vectors

```
import numpy as np

a = np.random.randn(5)

a = np.random.randn((5,1))

a = np.random.randn((1,5))

assert(a.shape = (5,1))
```

produces a gaussian/normally distributed sample

a.shape = (5,) → [1,2,3,4,5]

↳ "rank 1 Array"

Dont use
Because trying to do np.dot(a.T,a) gives a single number (Σ of squares) $1^2 + 2^2 + \dots 5^2$

[[1,
2,
3,
4,
5]]

→ which is a 5x1 matrix

So if you do np.dot(a.T,a)
you're doing (1x5) x (5x1)
= (5x5) Matrix

Good practice