

- Numpy.

✓Pandas

Viz

Re

→ [Prob & Stats] (12-13)

Maths & ML

SQL

Numpy.

Agenda:

- Numpy / Install
- Motivation?
- Array: 1D, 2D
- C
- Operations
- Ufunc.
- fitbit ✓ : Use Case

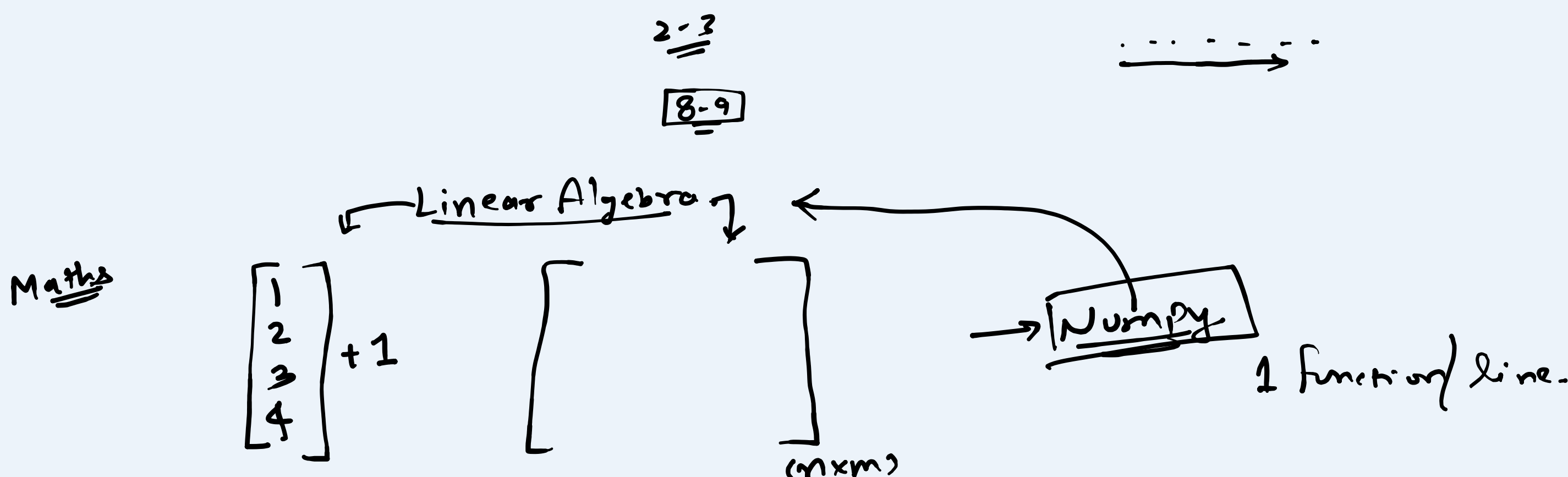
fitbit ?

#date	step_count	mood	calories_burned	hours_of_sleep	bool_of_active	weight_kg
06-10-2017	5464	200	181	5	0	66
07-10-2017	6041	100	197	8	0	66
08-10-2017	25	100	0	5	0	66
09-10-2017	5461	100	174	4	0	66
10-10-2017	6915	200	223	5	500	66
11-10-2017	4545	100	149	6	0	66
12-10-2017	4340	100	140	6	0	66
13-10-2017	1230	100	38	7	0	66
14-10-2017	61	100	1	5	0	66
15-10-2017	1258	100	40	6	0	65
16-10-2017	3148	100	101	8	0	65
17-10-2017	4687	100	152	5	0	65
18-10-2017	4732	300	150	6	500	65
19-10-2017	3519	100	113	7	0	65
20-10-2017	1580	100	49	5	0	65
21-10-2017	2822	100	86	6	0	65
22-10-2017	181	100	6	8	0	65
23-10-2017	3158	200	99	5	0	65

Analysis?

- insights
- mean, median.

time? 2km
6am
.....→



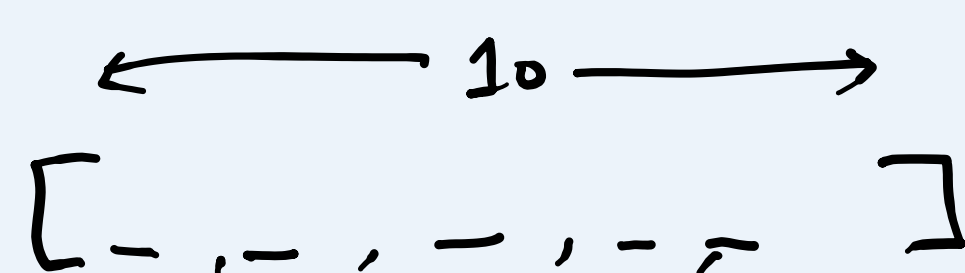
In ML / DL

everything \leftrightarrow A Matrix

img \rightarrow Matrix
text \rightarrow Matrix
audio \rightarrow Matrix



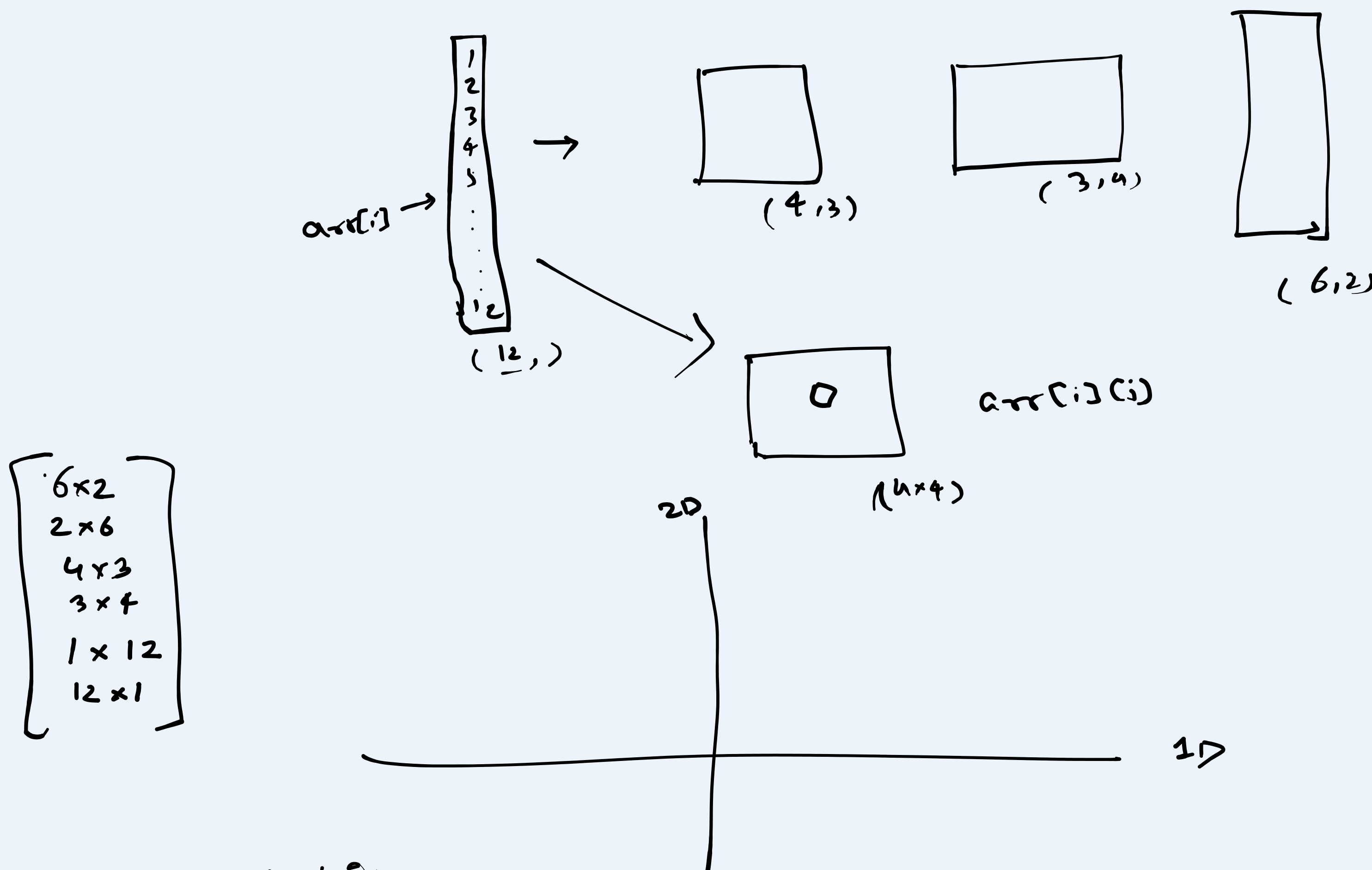
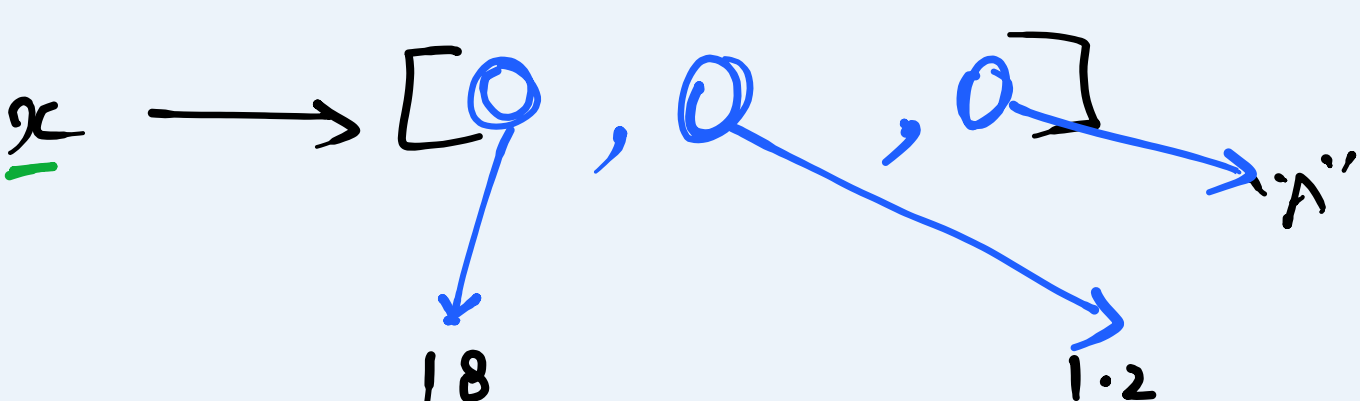
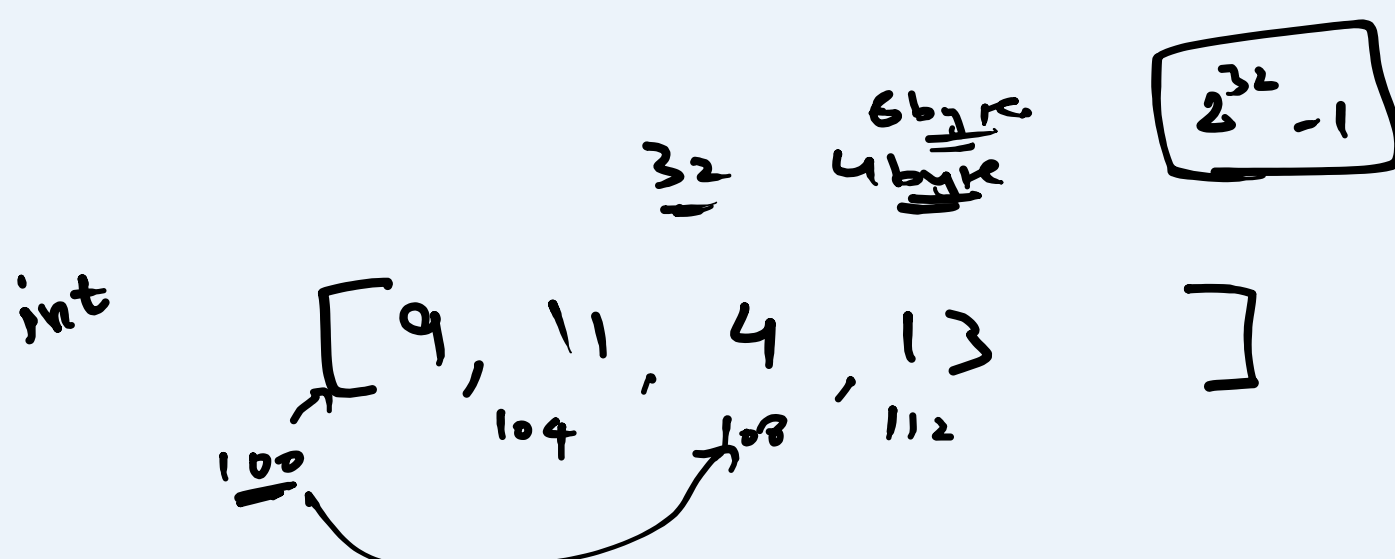
Numpy \rightarrow C



Python
list

C type array

x \rightarrow $['8', 1.2, "A"]$



- 6x2
- 2x6
- 4x3
- 3x4
- 1x12
- 12x1

Vector
 \downarrow
1D
(elements)

Matrix
 \downarrow
2D
(rows, cols)

