

Scaling

Tuesday, April 5, 2022 9:31 PM

	Area	Room
①	3000	3
②	2800	1
③	2200	3

Manhattan distance

① ③ dis-similarity

$$(3000 - 2200) + (3 - 3)$$

$$800^2 + 0^2$$

$$= 640000$$

① ②

$$(3000 - 2800)^2$$

$$200^2 = 40000$$

② ③

$$(2800 - 2200)^2 = 600^2 = 360000$$

→ ③ ②

$$(100)^2 + (2)^2$$

$$10000 + 4$$

$$10004$$

Normalization → [0, 1]

Standardization → mean = 0
variance = 1

1 3 7 8

$$\frac{1}{N} \sum (mean - x)^2$$

arr = [- - - - -]

$$\text{min} = \text{qr.min()}$$

$$\text{max} = \text{qr.max()}$$

$$\frac{\text{qr} - \text{min}}{\text{max} - \text{min}}$$

[0, 1]

$$\text{qr} \rightarrow \begin{matrix} 5 & 8 \\ \text{min} & \text{max} \end{matrix}$$

$$\text{qr} - \text{min} = \begin{matrix} \text{min} - \text{min} & \text{max} - \text{min} \end{matrix}$$

$$\begin{matrix} 0 & \text{max} - \text{min} \end{matrix}$$