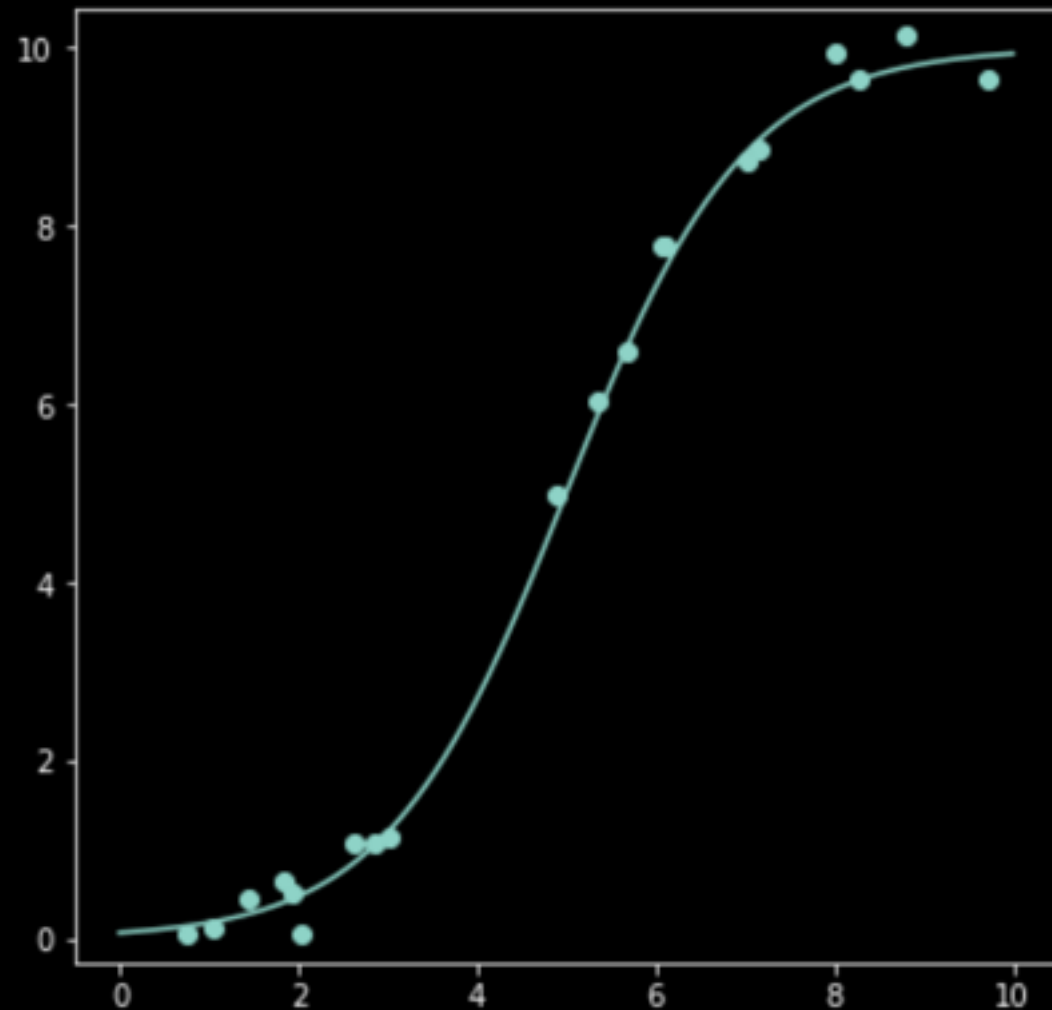


kNN examples

Linear Algebra Essentials



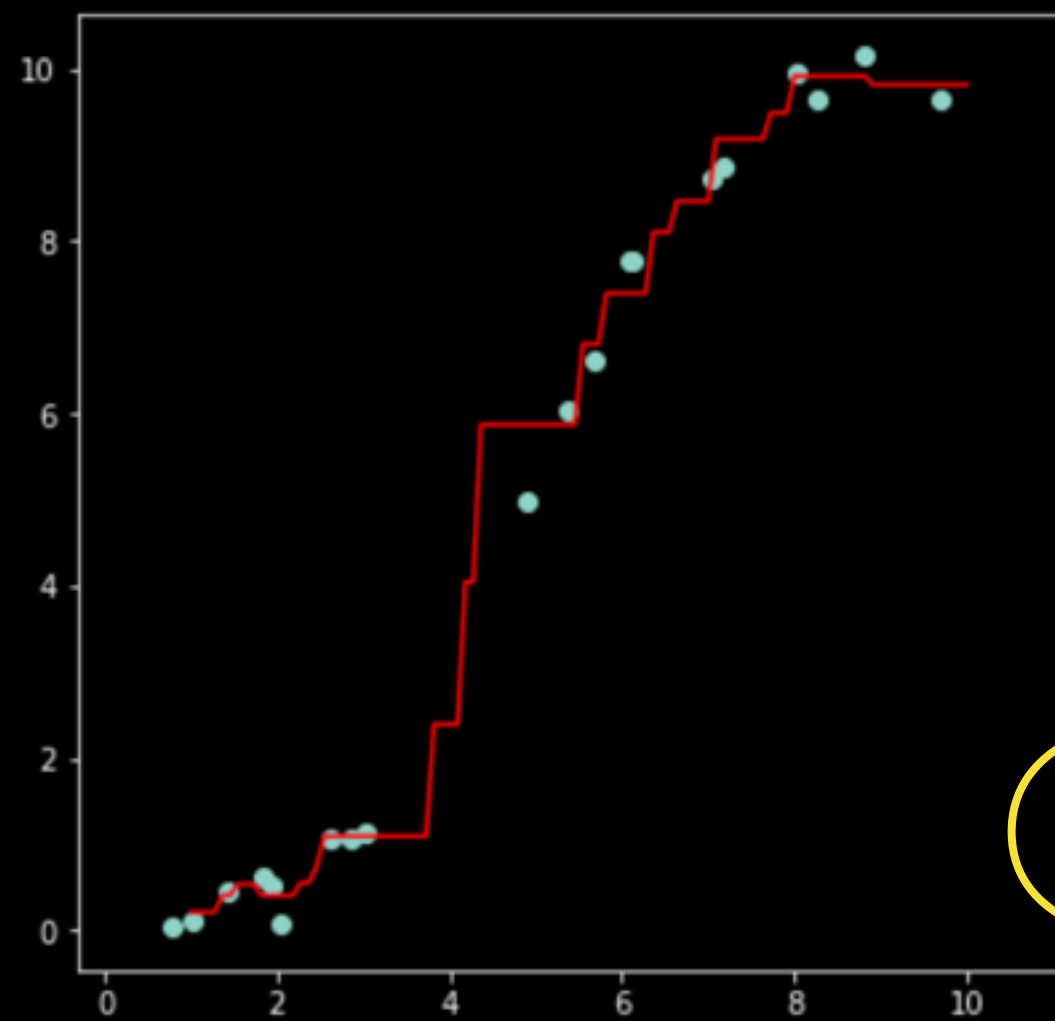
k-NN regression



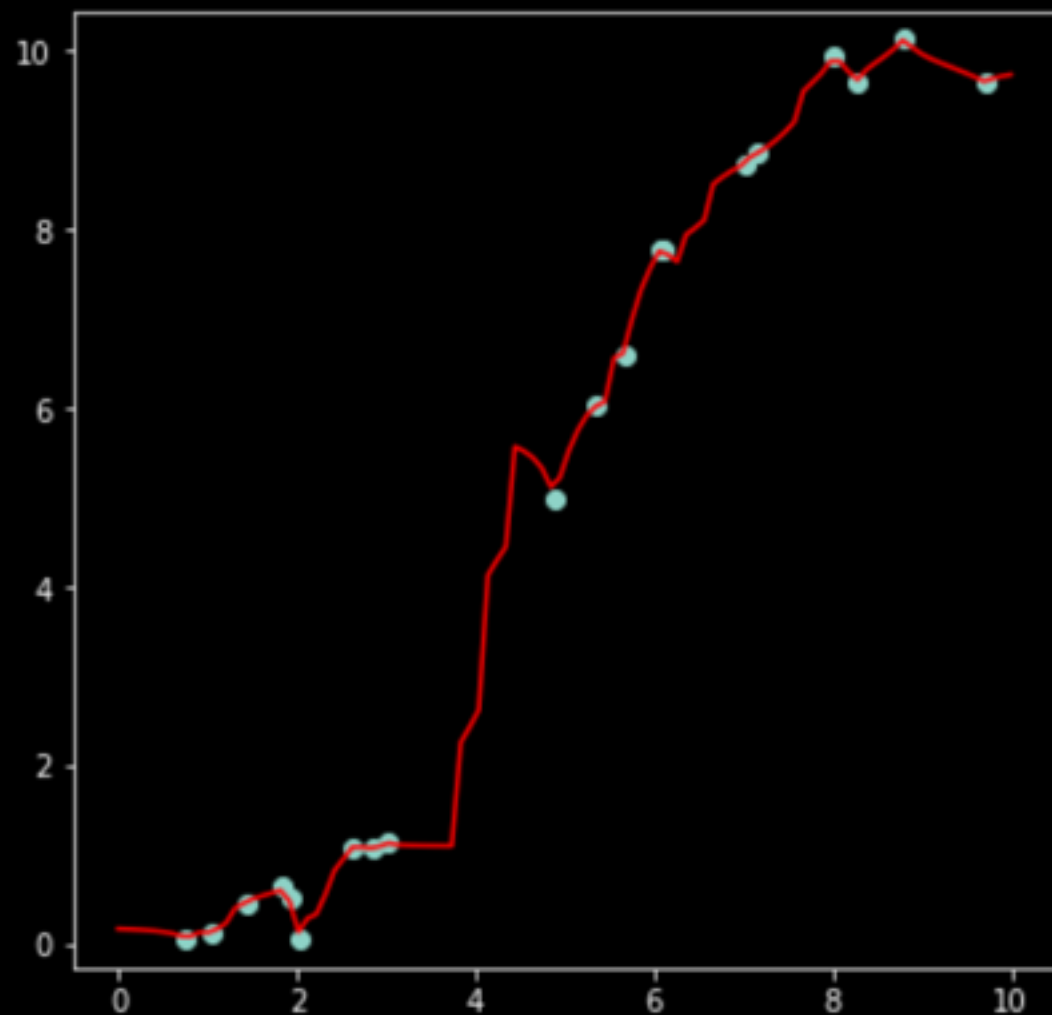
Data: $\{x_i, y_i\}$

Model: $y = f(x)$

$$y_q = \frac{1}{k} \sum_i^k y_i$$

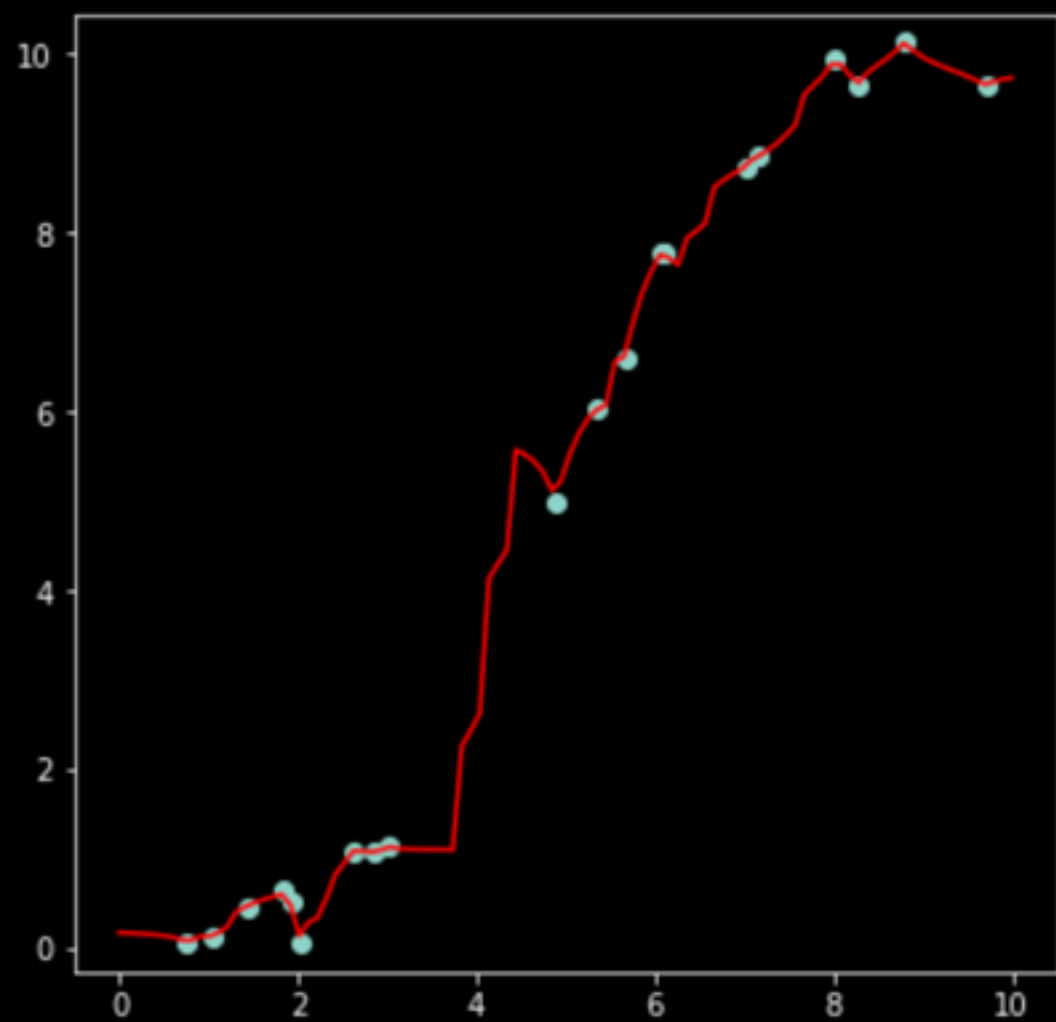


Weighted k-NN

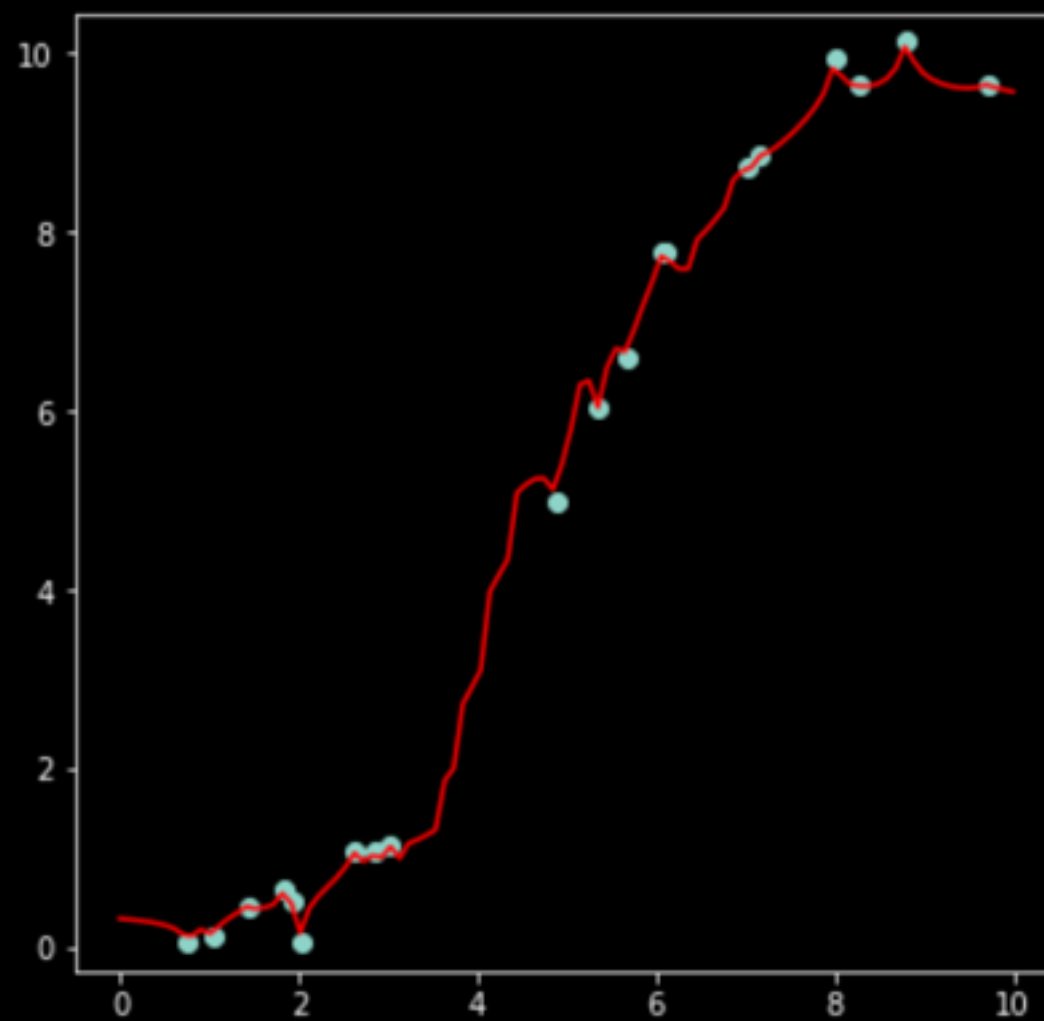


$K = 3$

$$y = \frac{\sum_i^k \frac{1}{d_i} y_i}{\sum_i^k \frac{1}{d_i}}$$



$K = 3$



$K = 7$