Least squares linear fit:

Using vertical offsets:

We use linear function:

y(x) = gx + i

For 3 points:

 $g=\frac{3\left(x\_{1}y\_{1}+x\_{2}y\_{2}+x\_{3}y\_{3}\right)-(x\_{1}+x\_{2}+x\_{3})(y\_{1}+y\_{2}+y\_{3})}{3\left(x\_{1}^{2}+x\_{2}^{2}+x\_{3}^{2}\right)-(x\_{1}+x\_{2}+x\_{3})^{2}}$

$$i=\frac{y\_{1}+y\_{2}+y\_{3}-g(x\_{1}+x\_{2}+x\_{3})}{3}$$

Similarly, for any number of points (n)