Implementácia

- upravený tvar úlohy pre solver

$$\min c^T x$$

$$A_{ub} x \leq b_{ub}$$

$$A_{eq} x = b_{eq}$$

$$x \in [l, u] \qquad\qquad l \leq u;\ l, u \in (\mathbb{R} \cup \{-\infty, \infty\})^n$$

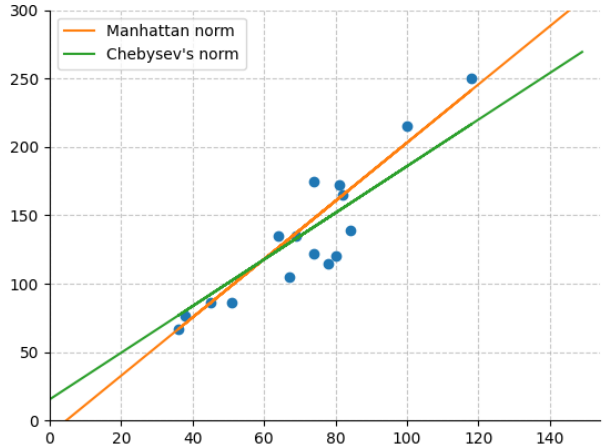
Implementácia

```
c = np.concatenate(([0]*(k + 1), np.ones(n)))
A = np.block([np.ones((n, 1)), np.array(x.values)])
I = np.identity(n)


A_ub = np.block([[-A, -I], [A, -I]])
b_ub = np.concatenate([-y, y])
bounds = [(None, None)]*(k + 1) + [(0, None)]*n
```

Riešenie úlohy a vizualizácia

```
solve = linprog(c, A_ub, b_ub,
                bounds=bounds)
betas = solve.x[:k+1]
```



priamky L^1 a L^∞ lineárnych regresií pre arbitrárne dáta