

### Example 1

- Express as an LP:

$$\min \|Ax - b\|_{\infty}, \quad A \quad m \times n \\ x \in \mathbb{R}^n$$

- Find the dual and show it is equivalent to the problem:

$$\begin{aligned} \max & -b^T z \\ \text{s.t.} & A^T z = 0 \\ & \|z\|_1 \leq 1 \end{aligned}$$

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