- *Linear scaling to unit range:*

  Given a lower bound l and an upper bound u for a feature $x \in \mathbb{R}$,

  $$\tilde{x} = \frac{x - l}{u - l}$$

  results in $\tilde{x}$ being in the $[0, 1]$ range.

- *Linear scaling to unit variance:*

  A feature $x \in \mathbb{R}$ can be transformed to a random variable with zero mean and unit variance as

  $$\tilde{x} = \frac{x - \mu}{\sigma}$$

  where μ and σ are the sample mean and the sample standard deviation of that feature, respectively.