SVAE

X are inputs with shape (2x?)
for row `x` in X:
    pass `x` through preprocessing (Dense) layers
    concatenate `x` into vector `c`
    pass `c` through Encoder to get `e`
    put `e` through another layer to get μ, Σ
    get z from μ, Σ
    reconstruct `x` through decoder and layers after decoder
    pass `e` through fully connected layers [64,32,1] where last layer has sigmoid activation to get prediction
    get losses using MAE from reconstructed points and weighted binarycrossentropy for prediction

VAErcp (reconstruction probability)

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    put `e` through another layer to get μ, Σ
    get z from μ, Σ
    get `d` by passing z through decoder
    reconstruct `x`
    for 1:L
        get $\hat{z}$ sampling using μ, σ
        get $\hat{d}$ by passing $\hat{z}$ through decoder
        pass $\hat{d}$ through layers to get $\hat{\mu}_{x^{(l)}}, \hat{\sigma}_{x^{(l)}}$
        take $p = p_\theta(x|\hat{\mu}_{x^{(l)}}, \hat{\sigma}_{x^{(l)}})$
    Reconstruction probability = average of p over L
    get losses using MAE on reconstruction inputs and reconstruction probability

VAEdistance (Reconstruction error)

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get z from μ, Σ
get `d` by passing z through decoder
reconstruct `x`
Predict using reconstruction error
get losses using MAE on reconstructed points