

# variational\_autoencoder.ipynb - Colaboratory

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 <https://colab.research.google.com/github/sma...>



Variational Autoencoders (VAEs) The VAE implemented here uses the setup found in most VAE papers: a multivariate Normal distribution for the conditional distribution of the latent vectors given and input image  $(z | x)$  in the slides) and a multivariate Bernoulli distribution for the conditional distribution of images given the latent vector  $(x | z)$  in the slides). Using a Bernoulli distribution, the reconstruction loss (negative log likelihood of a data point in the output distribution) reduces to the pixel-wise binary cross-entropy. See the