Introduction to Deep Learning

Autoencoders

Encoding data to a reduced dimension and reconstruction of input data

Applications:

- Dimensionality reduction
- Anomaly detection
- Feature extraction, etc.

Autoencoders

Architecture of an autoencoder

- Encoder
- Decoder
- Latent space

Loss function in autoencoder

Autoencoders

Overcomplete autoencoder, Undercomplete autoencoder

Convolutional autoencoder

Variational autoencoder, etc.

Autoencoders

Convolutional autoencoder

Autoencoders

Tensorflow example - MNIST image reconstruction