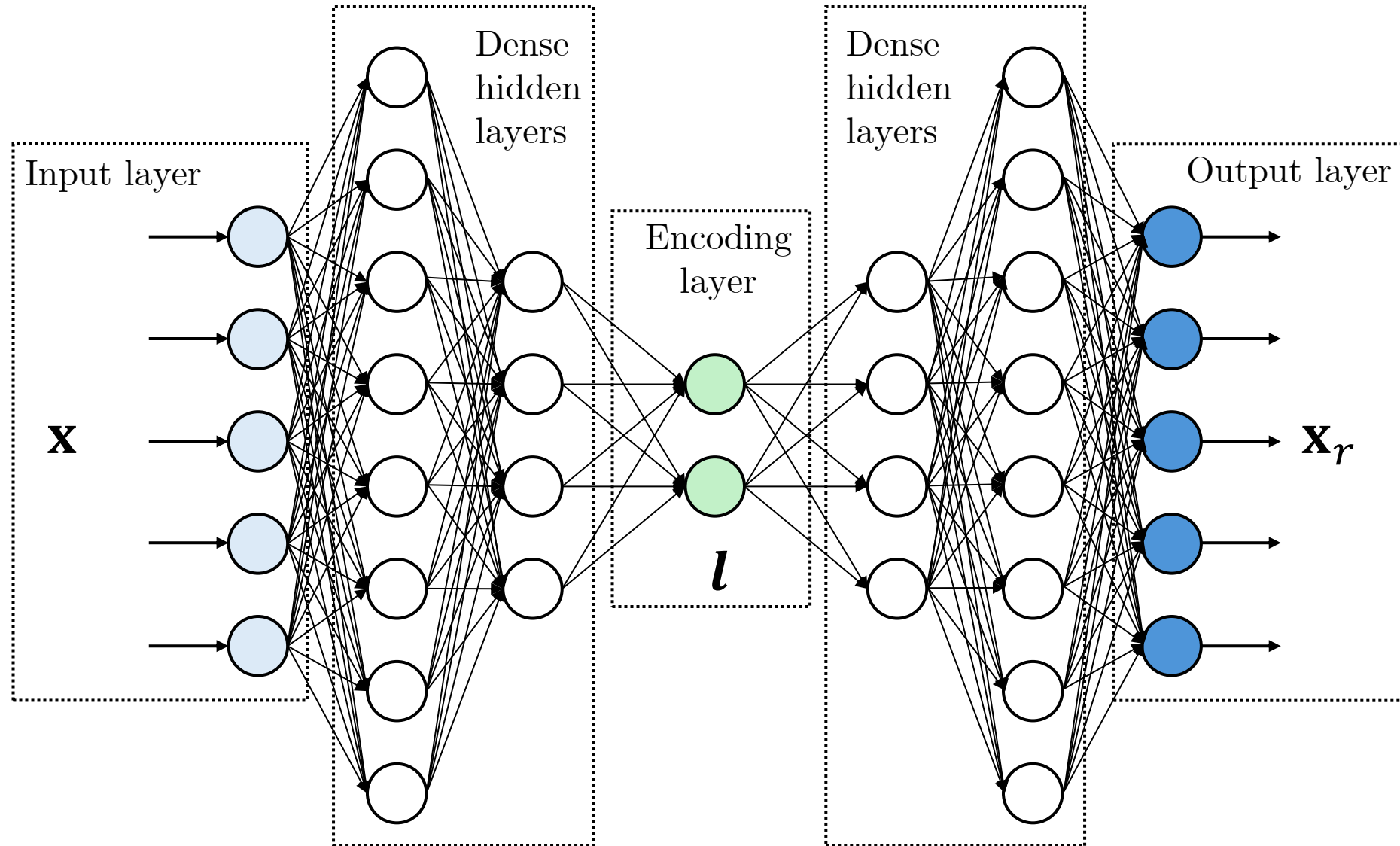# Autoencoders

South-African Council for Automation and Control

Exploratory Data Analysis workshop
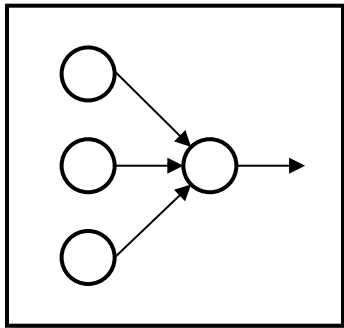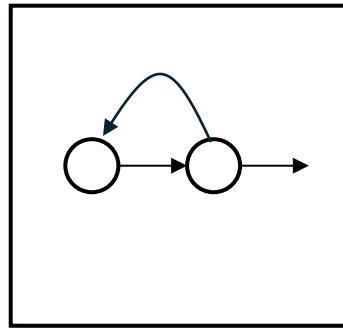
May 2025

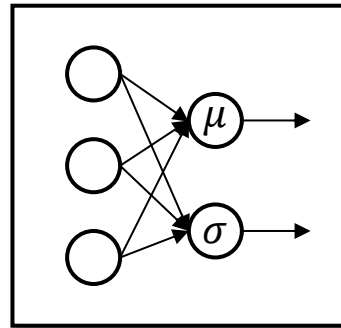# Autoencoders

Autoencoders

- Train neural network to reproduce inputs, passing through bottleneck layer
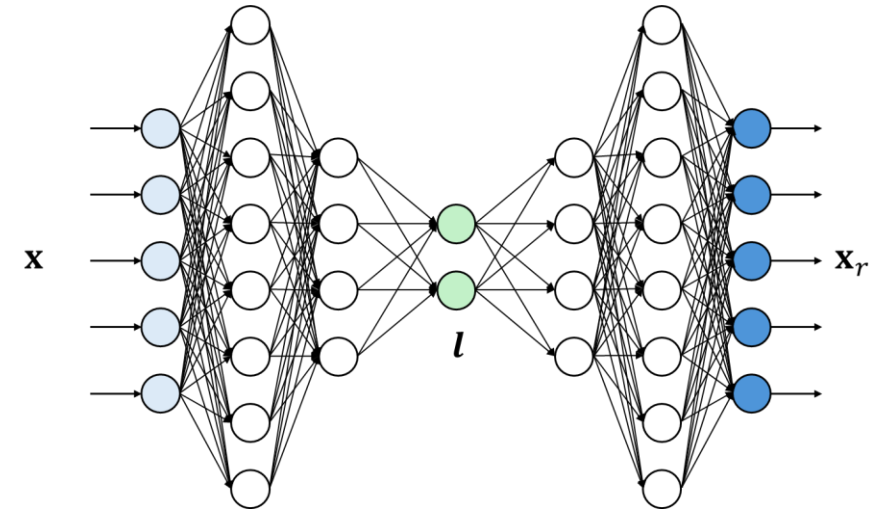
- Many varieties:
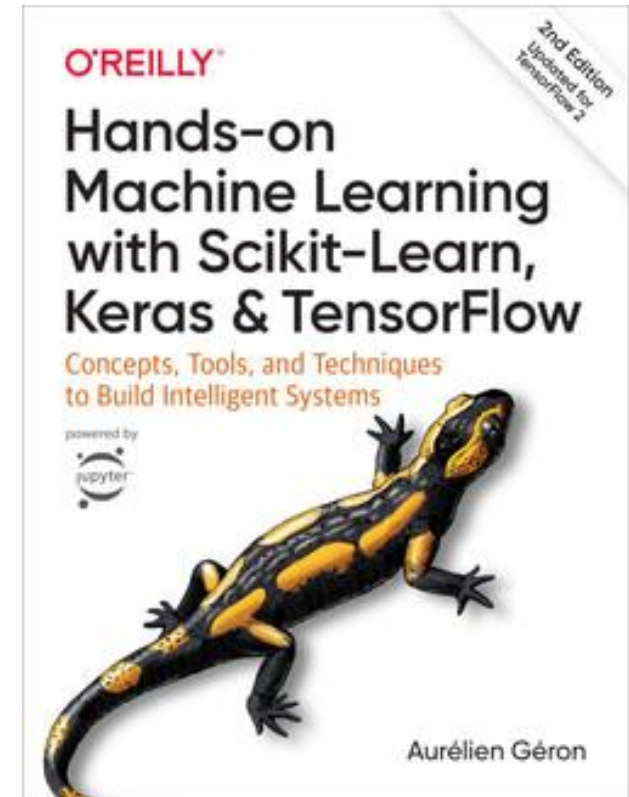
Convolutional   Recurrent   Variational
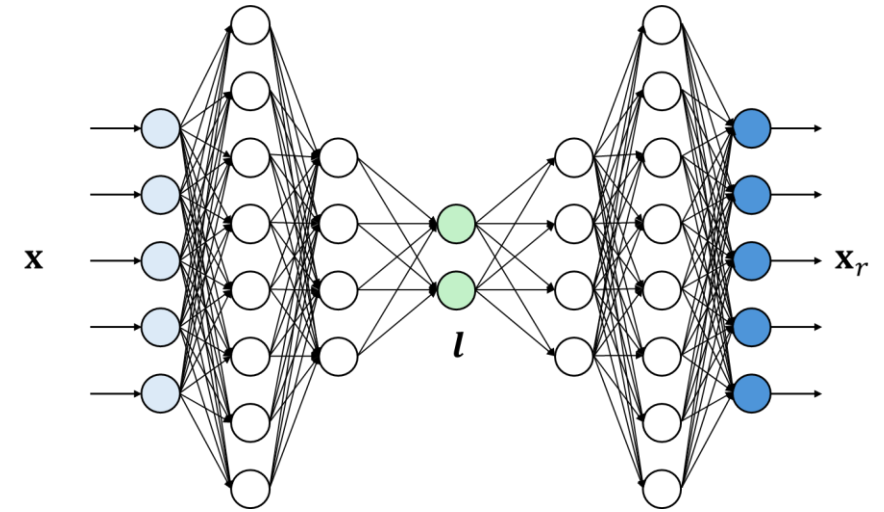
Challenging to design and train (overfitting)

Autoencoders

- Keras provides beautiful, easy to use API to TensorFlow

- Ease of use does not make for straightforward application

https://www.tensorflow.org/

https://keras.io/