

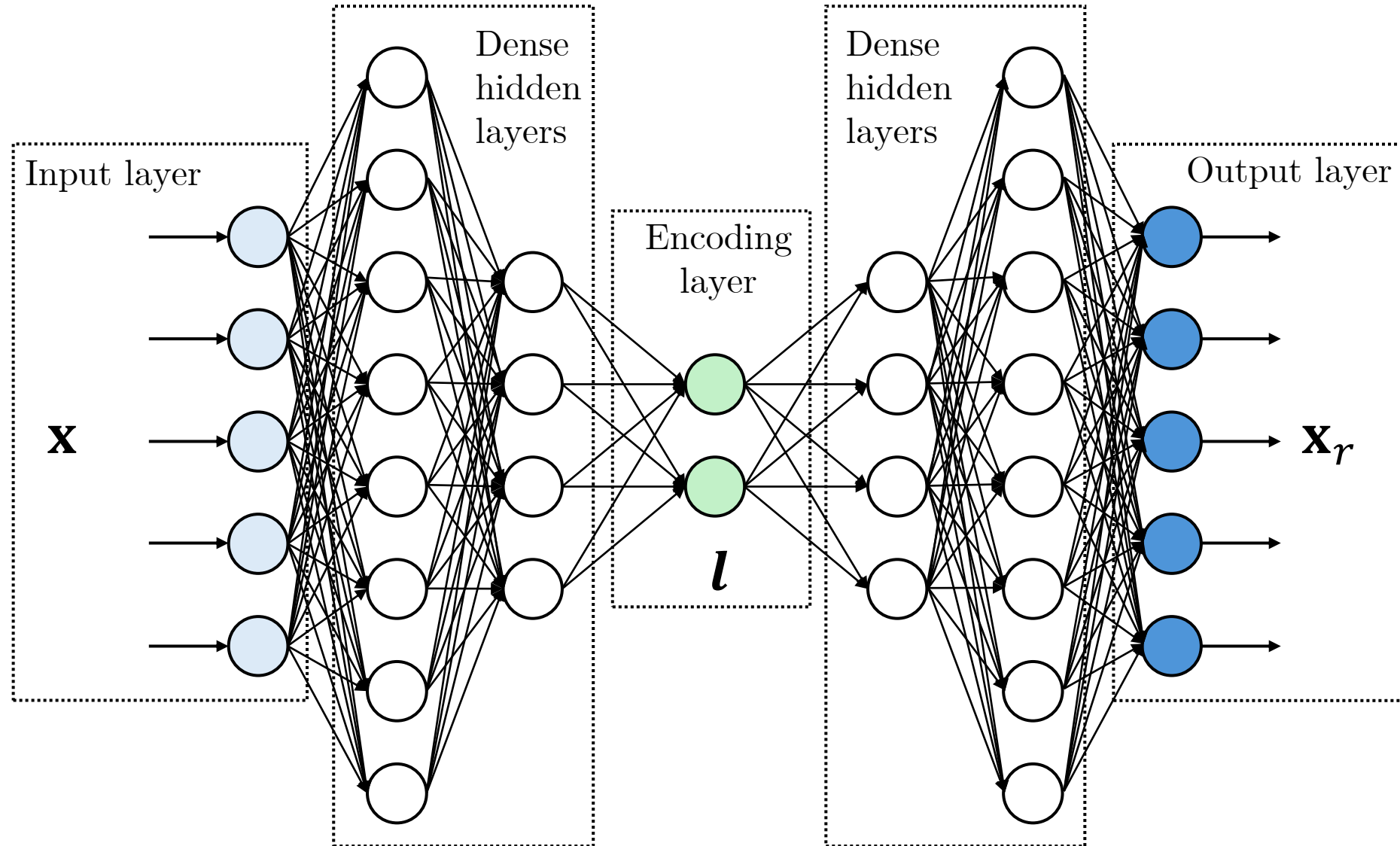
# Autoencoders

South-African Council for Automation and Control

*Exploratory Data Analysis workshop*

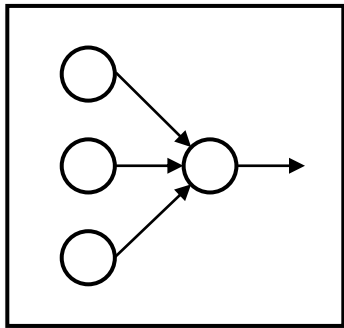
March 2024

# Autoencoders

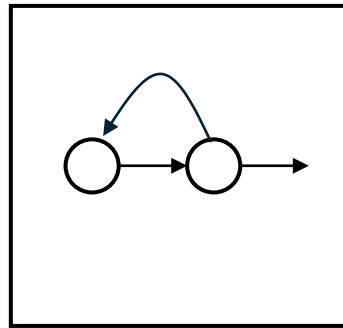


# Autoencoders

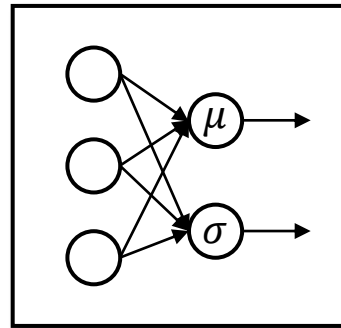
- Train neural network to reproduce inputs, passing through bottleneck layer
- Many varieties:



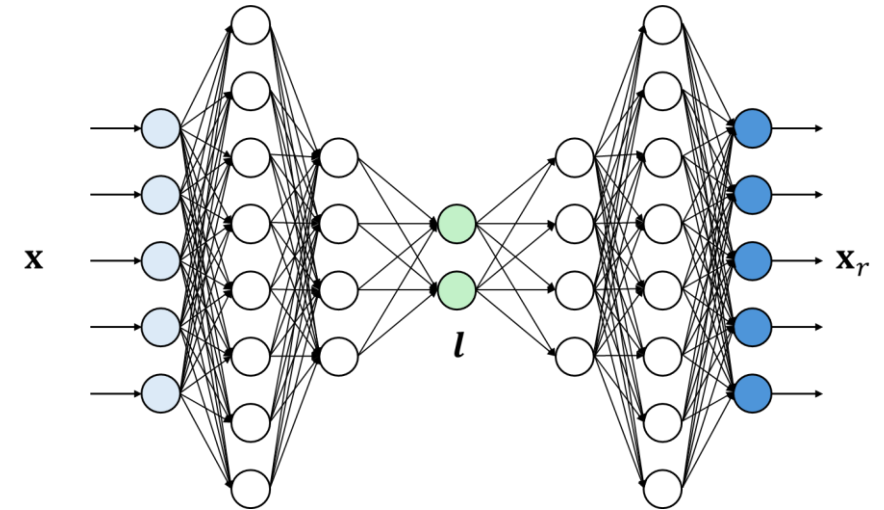
Convolutional



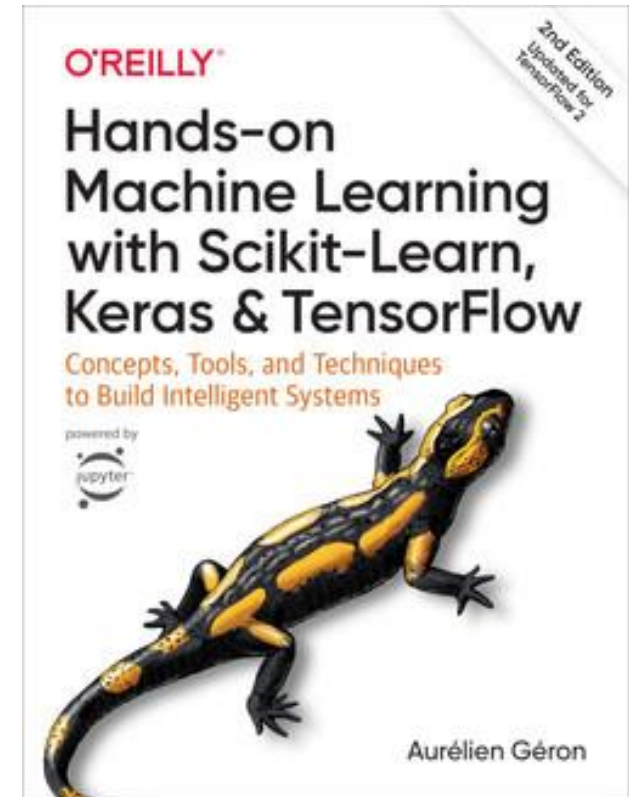
Recurrent



Variational

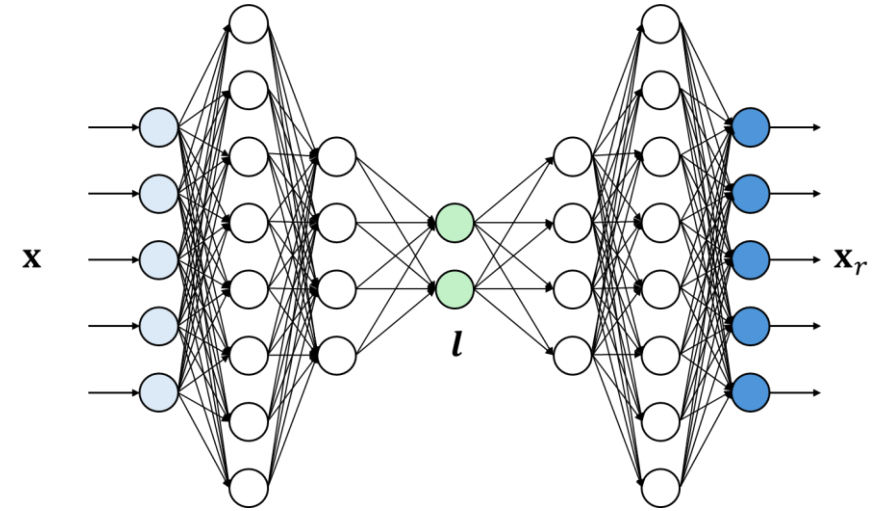


*Challenging to design and train (overfitting)*



# Autoencoders

- Keras provides beautiful, easy to use API to TensorFlow
- Ease of use does not make for straightforward application



<https://www.tensorflow.org/>

