<https://www.v7labs.com/blog/autoencoders-guide>

“ In case of simple autoencoders, the output is expected to be the same as the input with reduced noise.”

**Bottleneck**

The most important part of the neural network, and ironically the smallest one, is the bottleneck. The bottleneck exists to restrict the flow of information to the decoder from the encoder, thus,allowing only the most vital information to pass through.

A bottleneck as a compressed representation of the input further prevents the neural network from memorising the input and overfitting on the data.

As a rule of thumb, remember this: The smaller the bottleneck, the lower the risk of overfitting.

However—

Very small bottlenecks would restrict the amount of information storable, which increases the chances of important information slipping out through the pooling layers of the encoder.

Flipped bottleneck?

types of autoencoders

1. Undercomplete autoencoders
2. Sparse autoencoders
3. Contractive autoencoders
4. Denoising autoencoders
5. Variational Autoencoders

<https://bensapp.github.io/flic-dataset.html>