



## **NPTEL ONLINE CERTIFICATION COURSES**

**Course Name: Deep Learning**

**Faculty Name: Prof. P. K. Biswas**

**Department : E & ECE, IIT Kharagpur**

**Topic**

**Lecture 31: Autoencoder Training**

## CONCEPTS COVERED

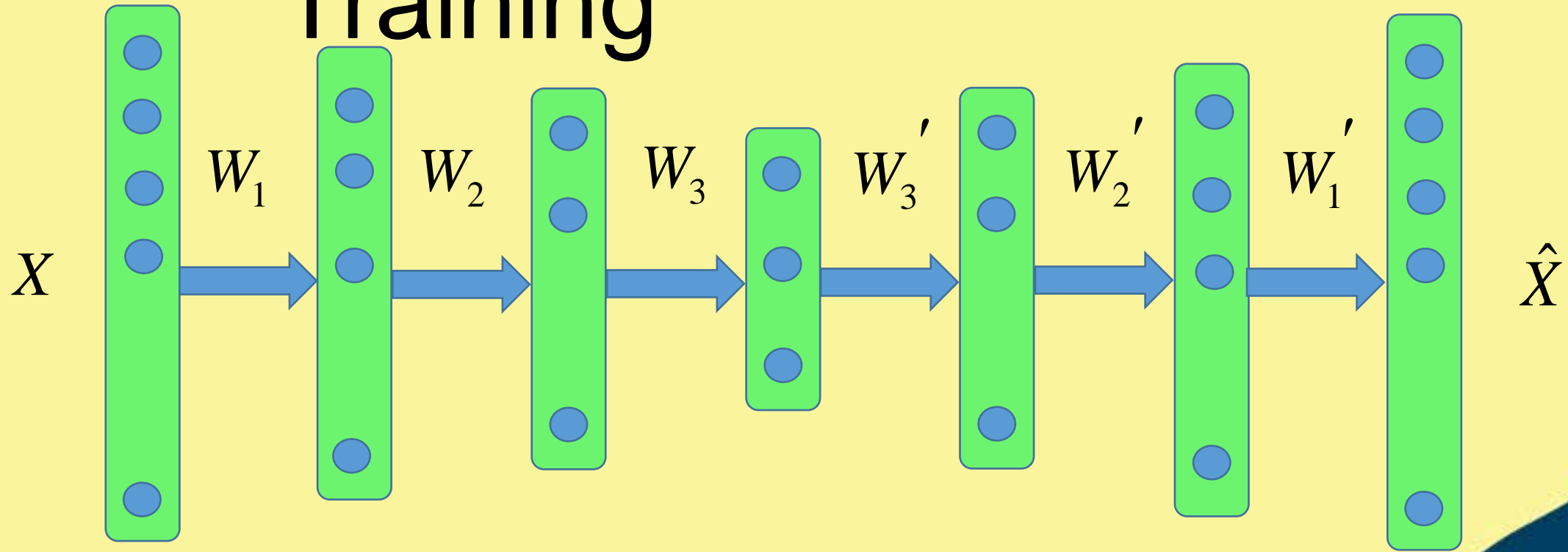
### Concepts Covered:

#### ❑ Autoencoder

- ❑ Undercomplete Autoencoder
- ❑ Autoencoder vs. PCA
- ❑ Deep Autoencoder Training
- ❑ Sparse Autoencoder
- ❑ Denoising Autoencoder
- ❑ Contractive Autoencoder
- ❑ Convolution Autoencoder



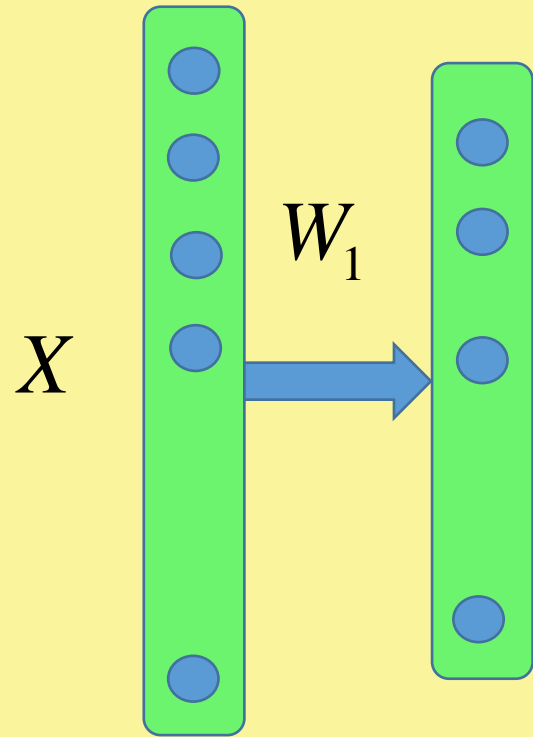
# Autoencoder Training



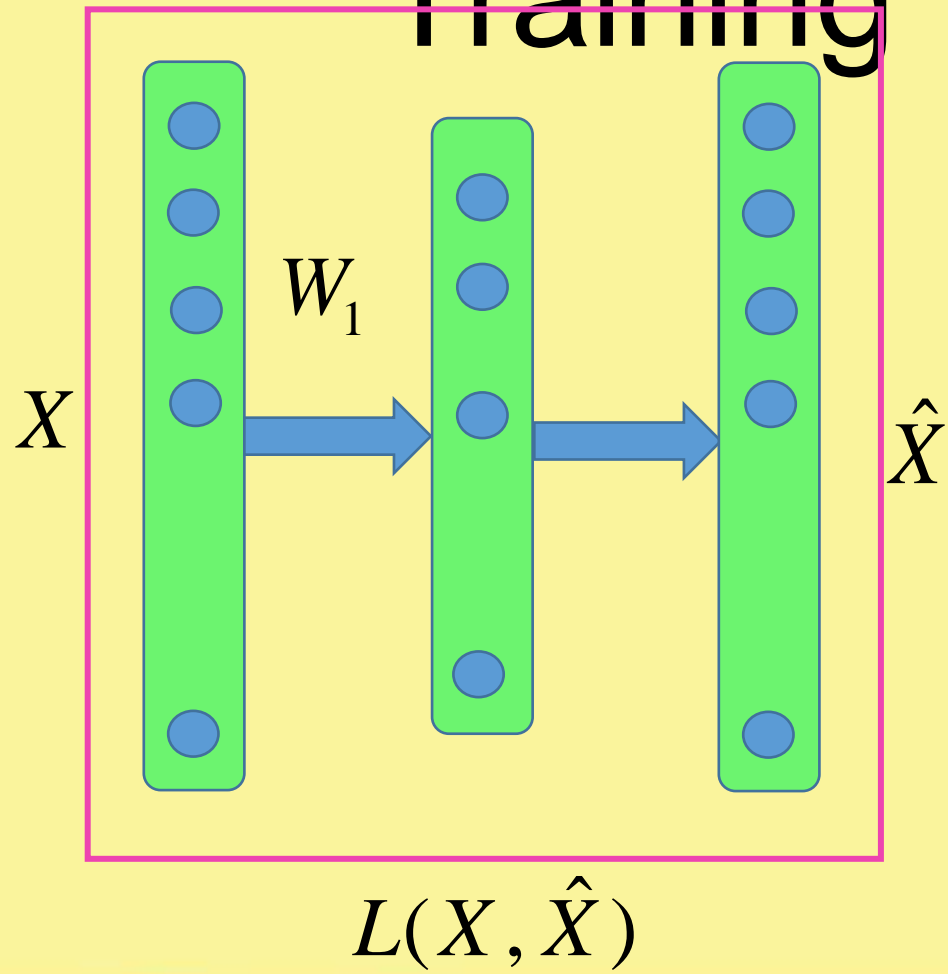
# Layer by Layer Pretraining



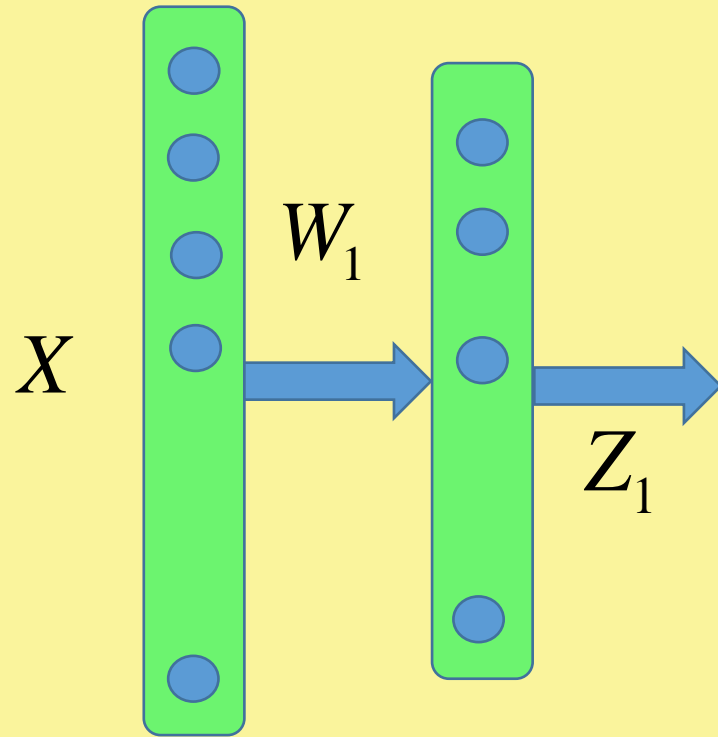
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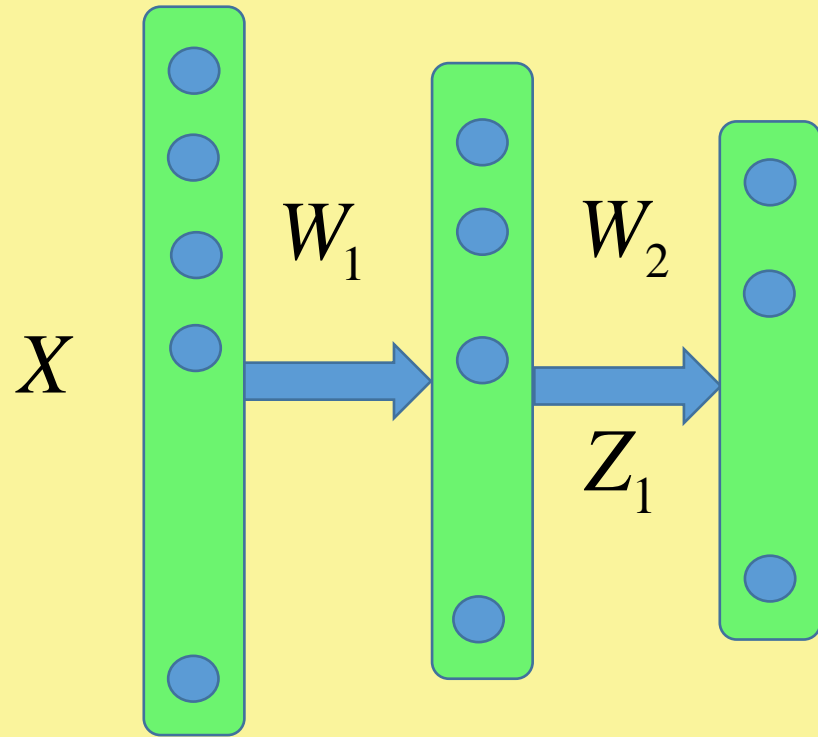
# Autoencoder Training



# Autoencoder Training

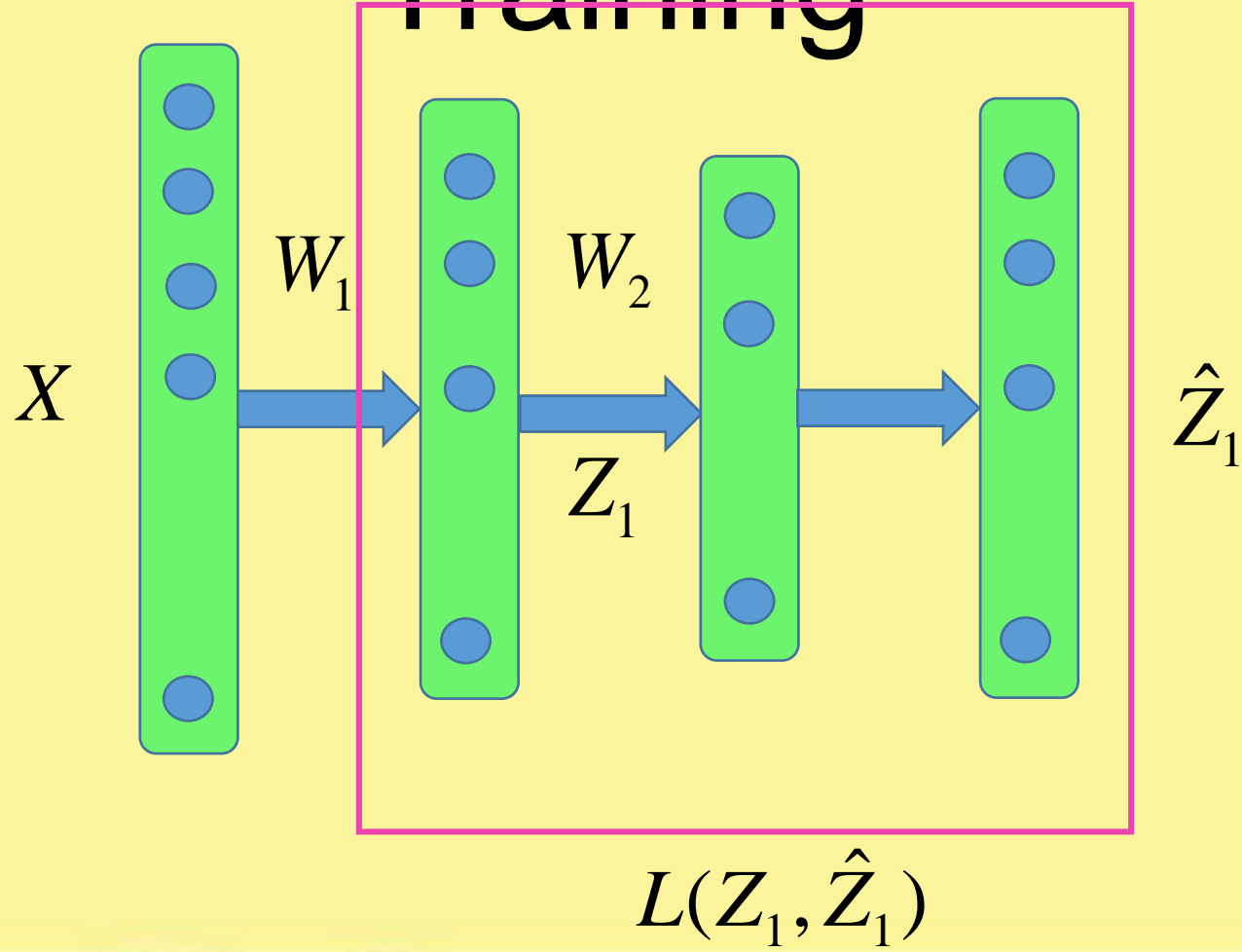


# Autoencoder Training

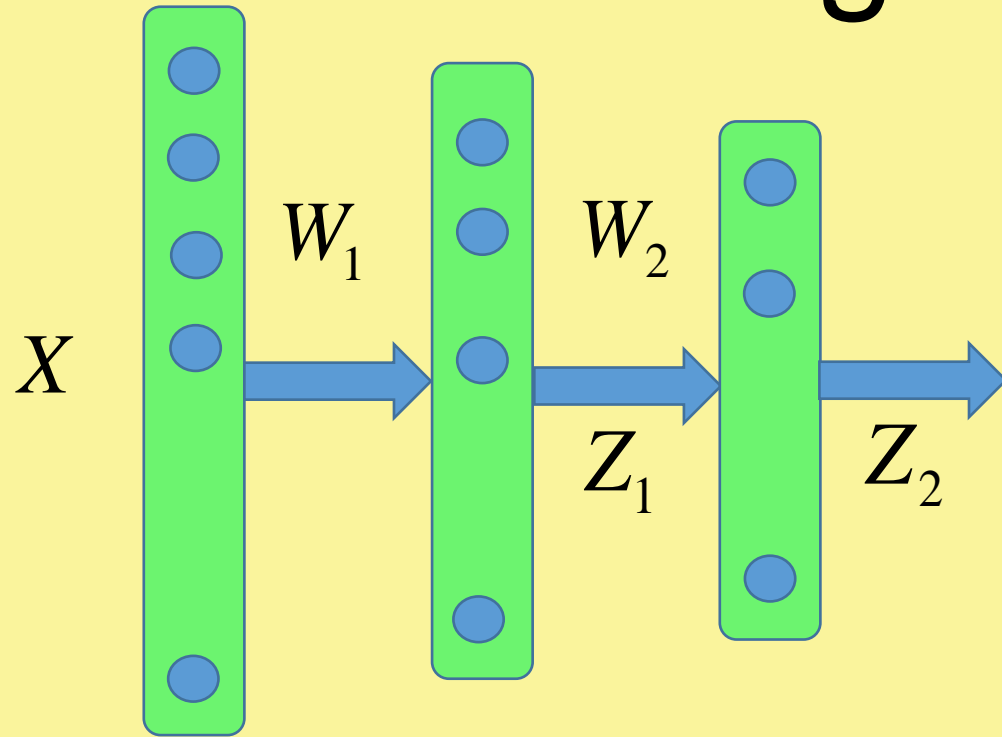




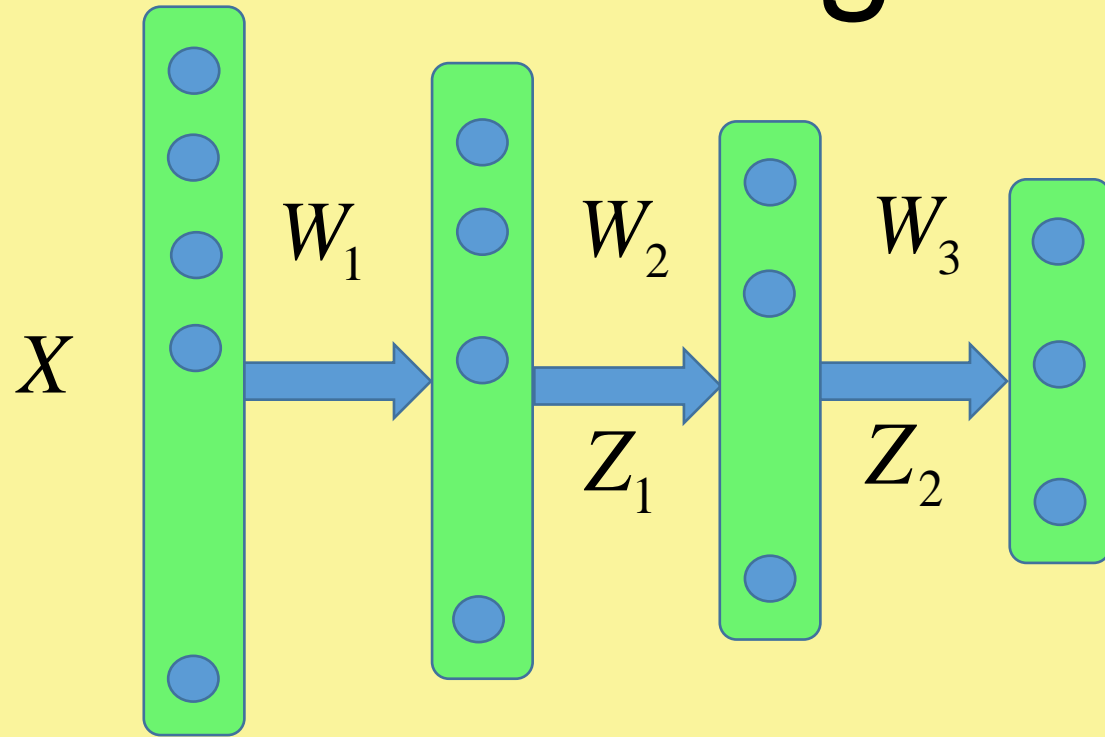
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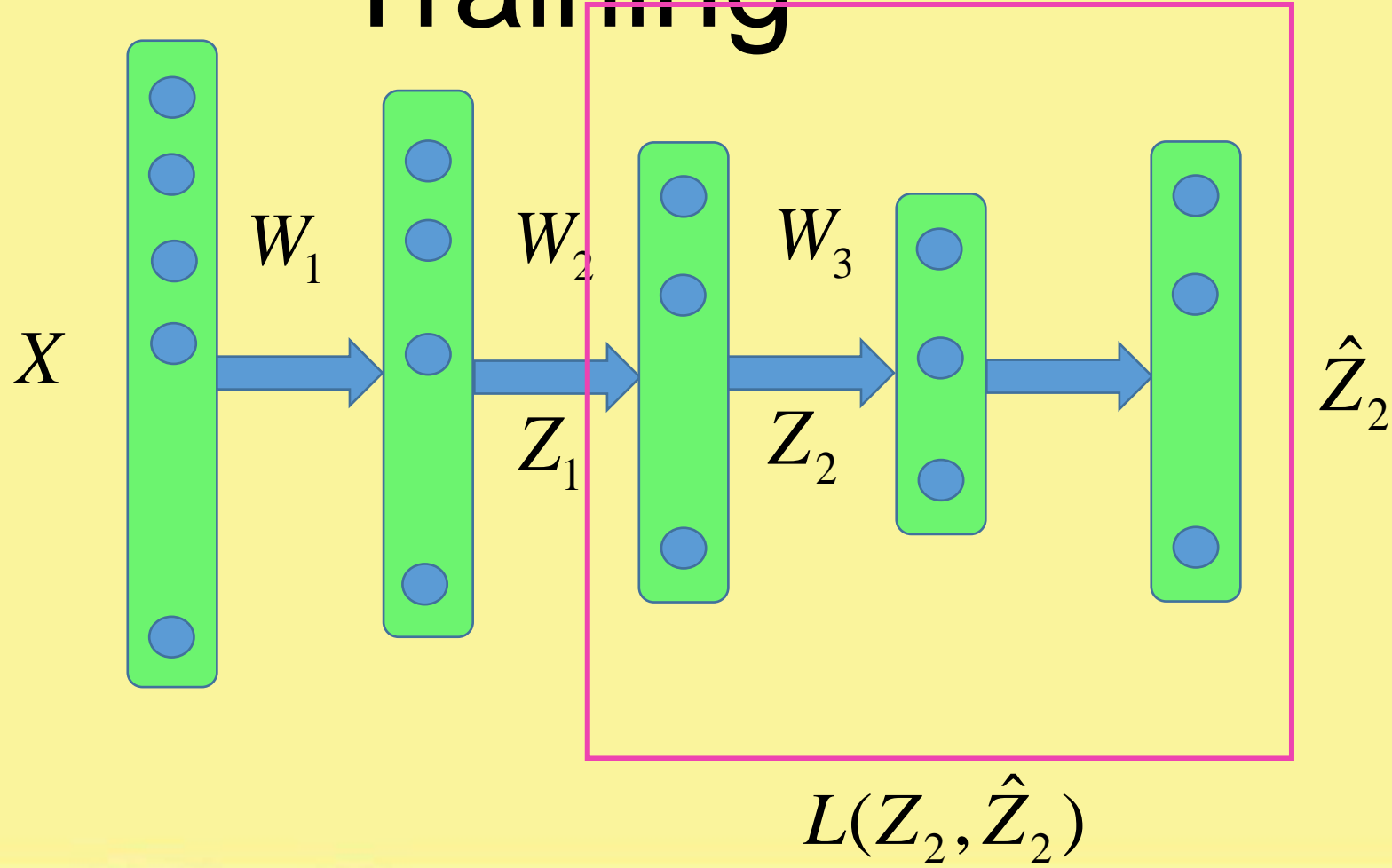
# Autoencoder Training



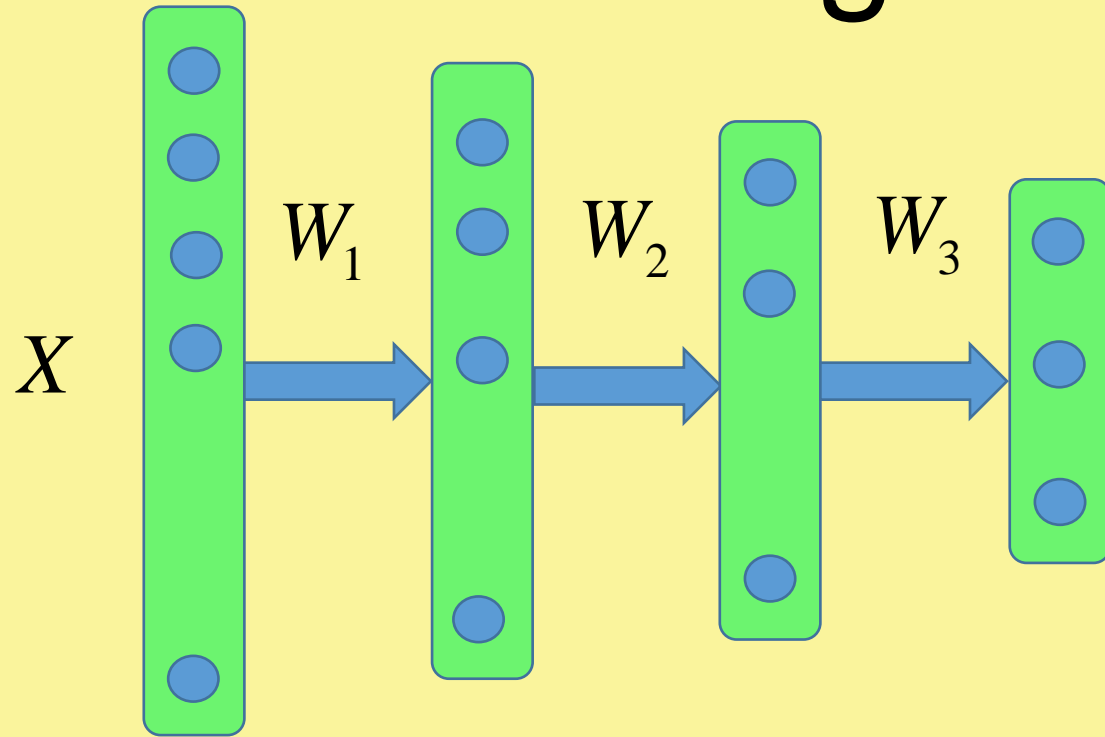
# Autoencoder Training



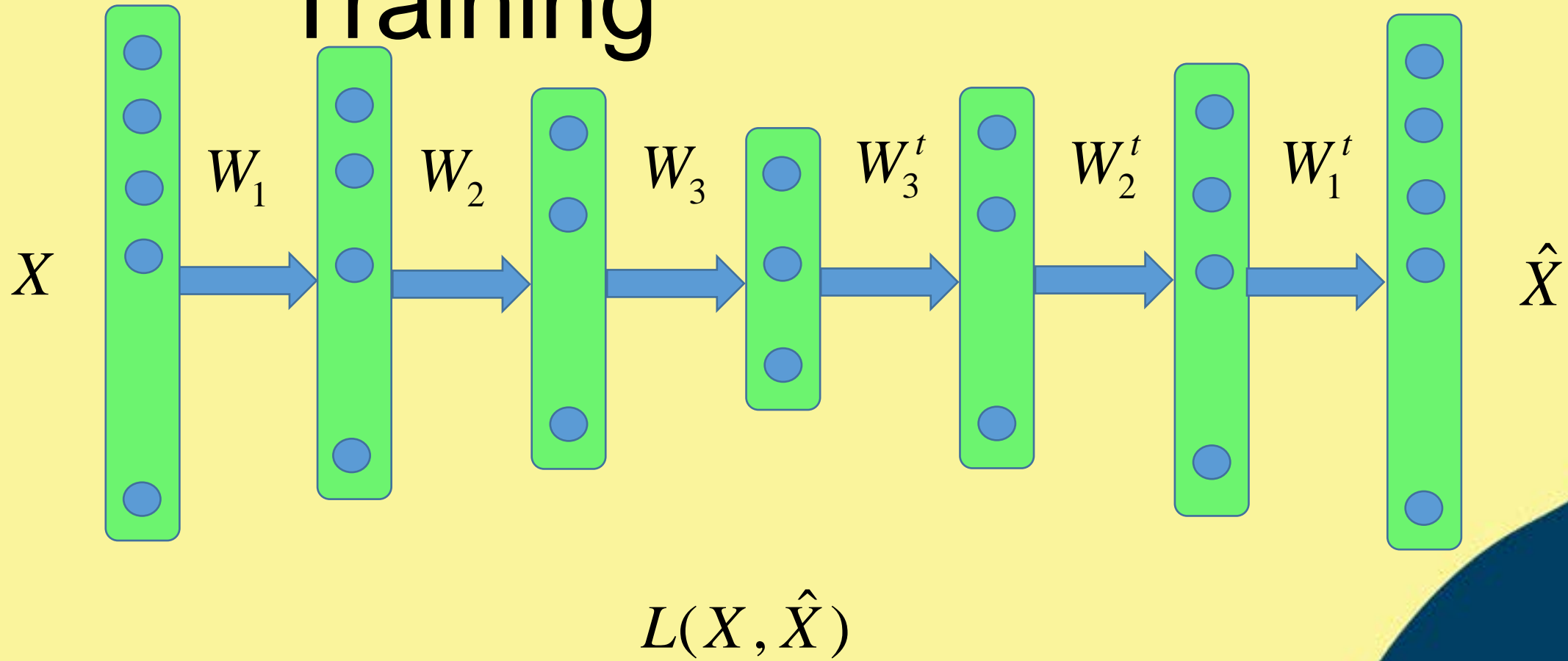
# Autoencoder Training



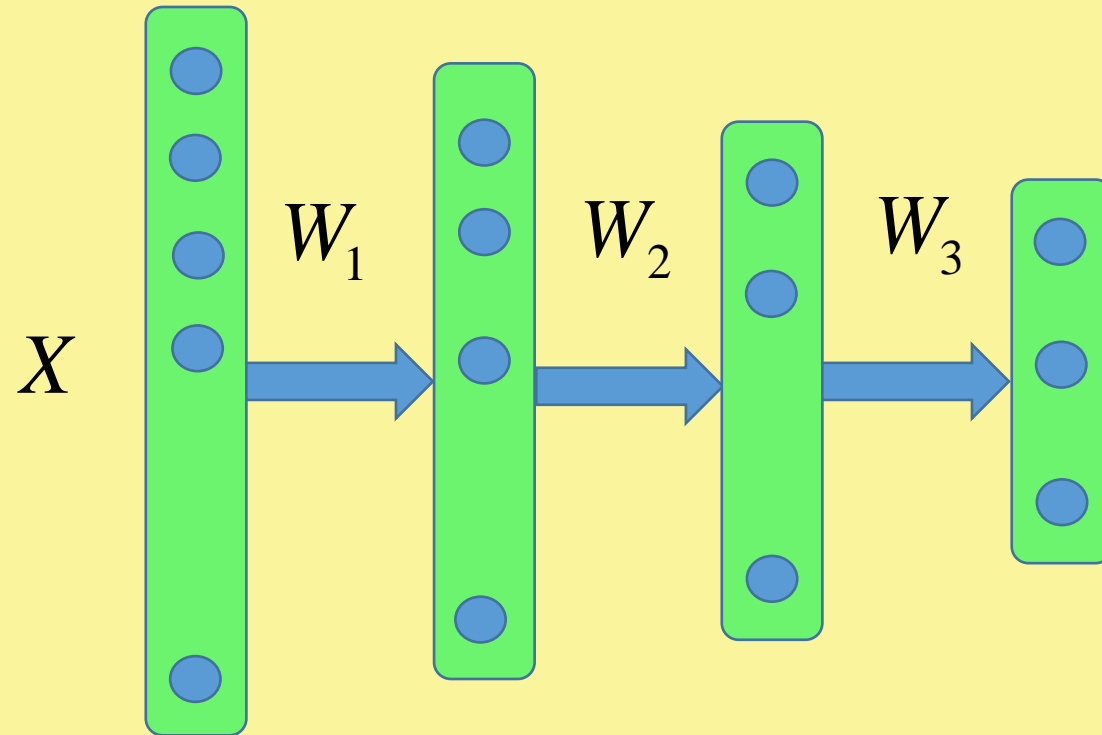
# Autoencoder Training



# Autoencoder Training



# Applications





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*Thank  
you*

