

## Module 4 Readings: Computer Vision Fundamentals on Google Cloud

Here are the assembled readings provided in Module 4.

## Module 4: Convolutional Neural Networks

- Lesson 2: Convolutional Neural Networks
  - Neocognitron
  - visual nervous system
  - o <a href="https://www.cs.toronto.edu/~hinton/absps/NatureDeepReview.pdf">https://www.cs.toronto.edu/~hinton/absps/NatureDeepReview.pdf</a>
  - http://yann.lecun.com/exdb/publis/pdf/lecun-89e.pdf
  - AlexNet
  - the concept of hierarchy
  - Google's own Inception network
- Lesson 4: CNN Model Parameters
  - https://keras.io/api/layers/convolution\_layers/convolution2d/
- Lesson 5: Working with Pooling Layers
  - https://keras.io/api/layers/pooling\_layers/
- Lesson 6: Implementing CNNs on Vertex AI with pre-built TF container using Vertex Workbench
  - National Institute of Standards and Technology
  - Softmax
- Lab intro:
  - o MNIST
  - o tf.keras API