

A deep learning steps towards a long-term data science journey

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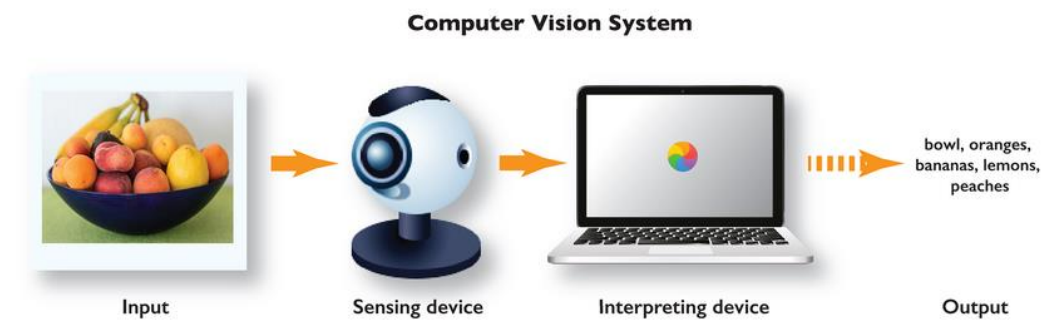
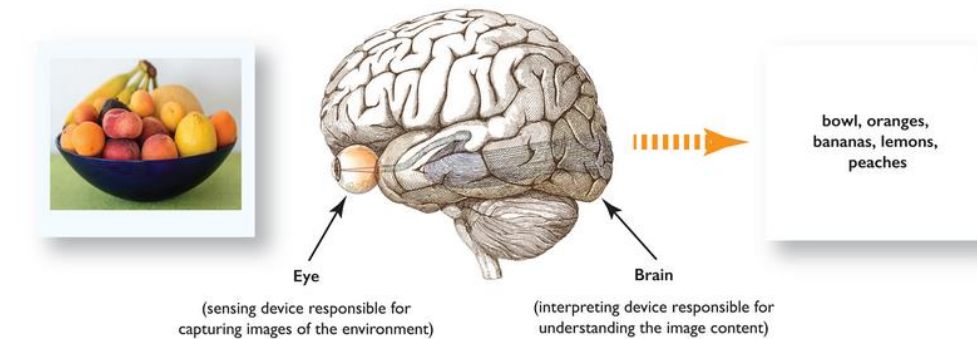
WHAT WE WILL LEARN ;



- Building a **ROBUST** vision for the AI ML Machine Learning & Deep learning career path.
- Being familiar with **COLAB** and **KAGGLE** environments &GiTHuP.
- Being Familiar with the most important python Machine Learning Libraries (**Numpy, Pandas, MatPlotLib,Scipy**)
- Being Familiar with the most important Deep Learning Platforms (**TensorFlow , Keras & OpenCV**)
- Developing a Transfer Learning Technique and dealing with various types of **DataSets**
- Building a **CNN** Convolutional Neural Network
- Building and Testing a Deep Learning **MODEL**
- Tuning the model **hyperparameters** to obtain the best accuracy
- Building a real life deep learning application
- Contributing in Kaggle **Competitions!**
- Algorithms and Data Structures & Python Coding

What is Computer Vision?

Computer Vision is the art of how computers can gain a high-level understanding of digital images or videos.

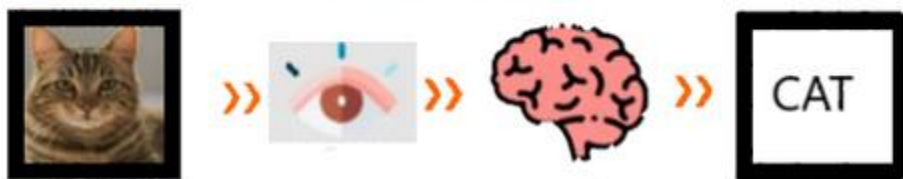


<https://freecontent.manning.com/mental-model-graphic-grokking-deep-learning-for-computer-vision/>

Machine Vision

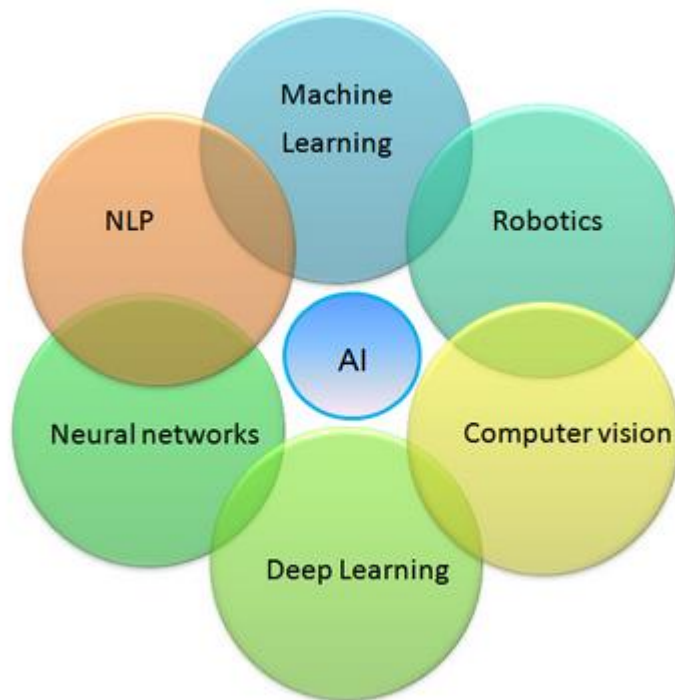
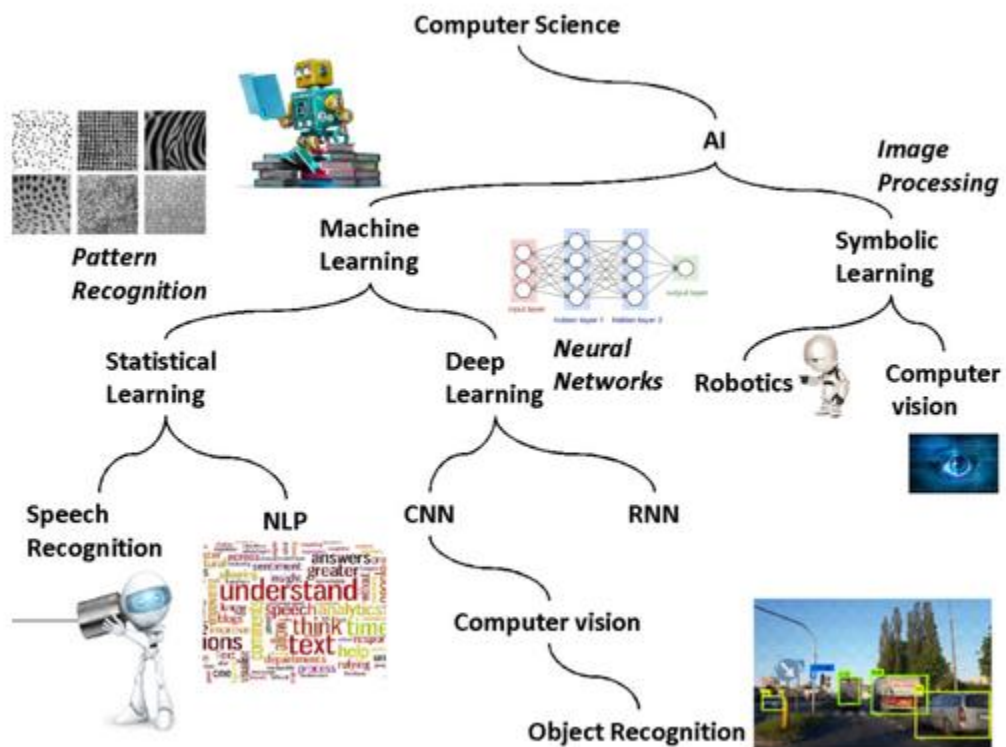


Human Vision



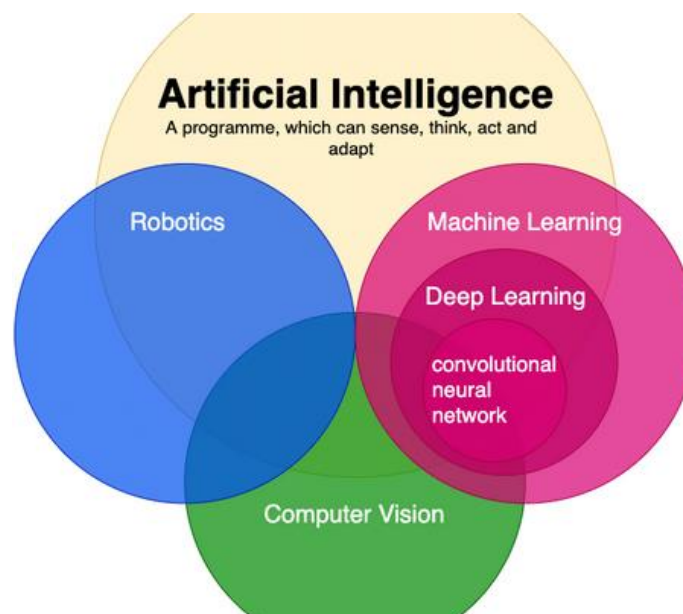
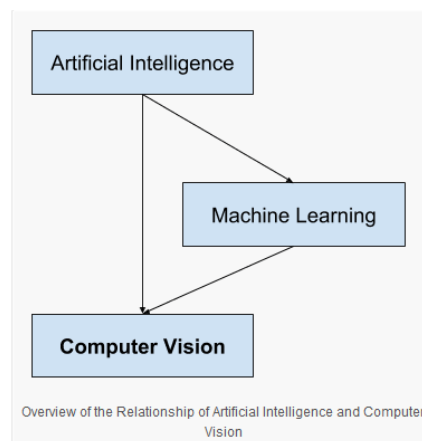
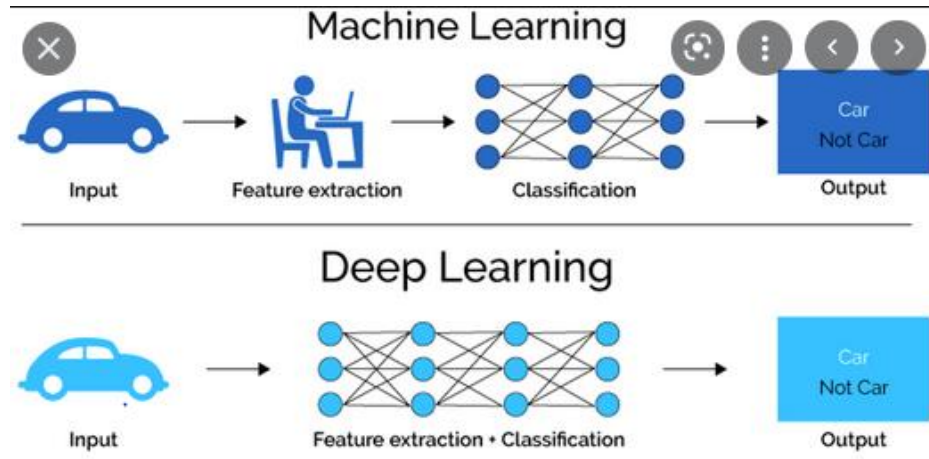
<https://devopedia.org/computer-vision>

Where can we use Computer Vision?



<https://www.aitimejournal.com/@premlatha.kr/what-is-ai-in-a-simple-way>

Deep-Learning Vs Machine-Learning



Why Computer Vision?



Computer Vision Projects List

1. Cartoonize an Image
 2. Face Detection
 3. Similar Images Finder
 4. Face Recognition
 5. Barcode and QR Code Scanner
 6. Face Mask Detection
 7. Handwritten Character Recognition using MNIST Dataset
 8. Number of People Counter
 9. Virtual Invigilator
 10. Polyp Segmentation
 11. Early Fire Detection System
 12. Facial Expression Recognition
 13. Text Scanner
 14. Number-Plate Reader
 15. Projects with Open Images Dataset
 16. Deep dreams using CNN
 17. Image Retrieval using Content
 18. Multi-class Image Classification
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