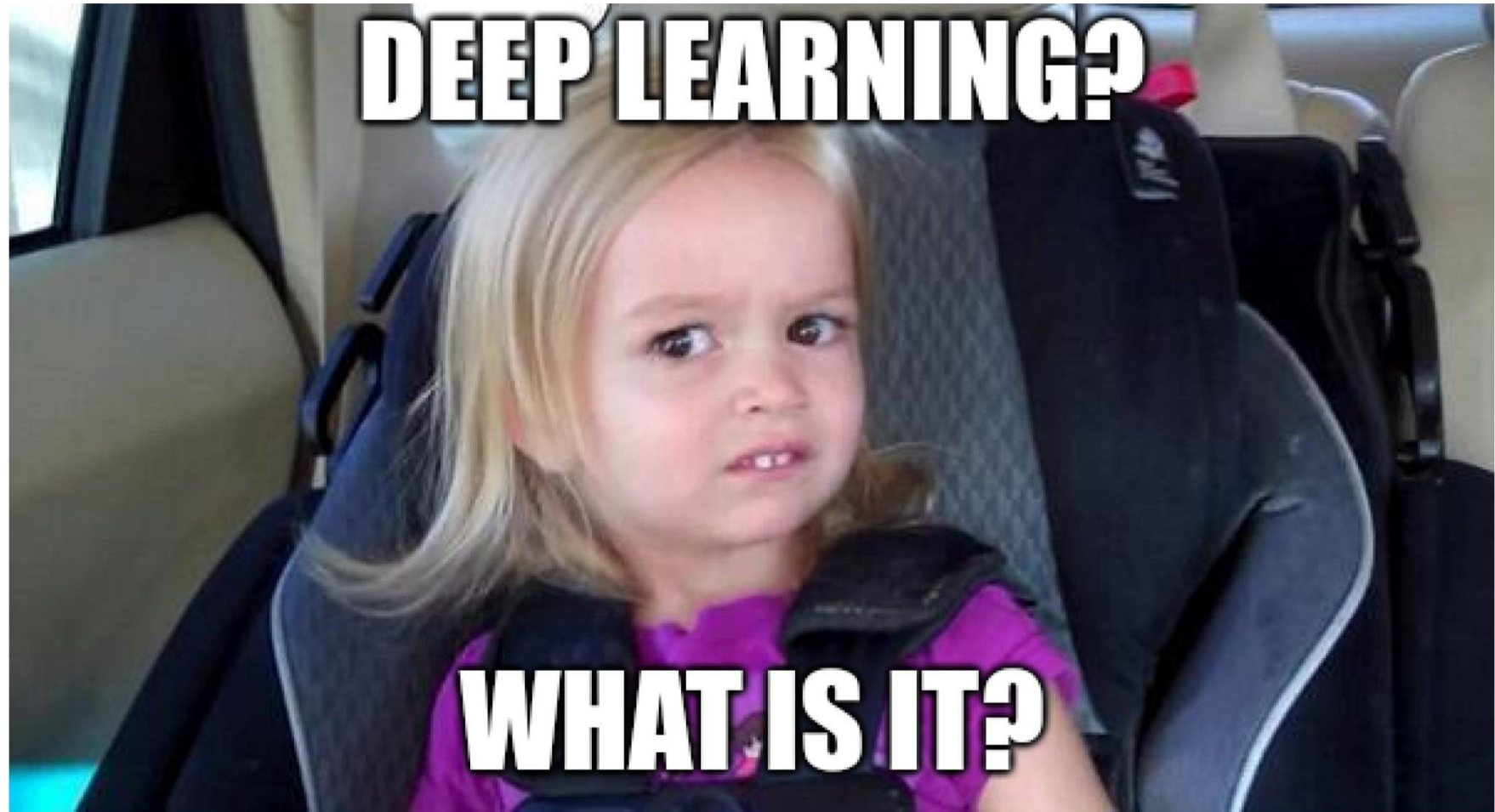


Deep Learning com Python

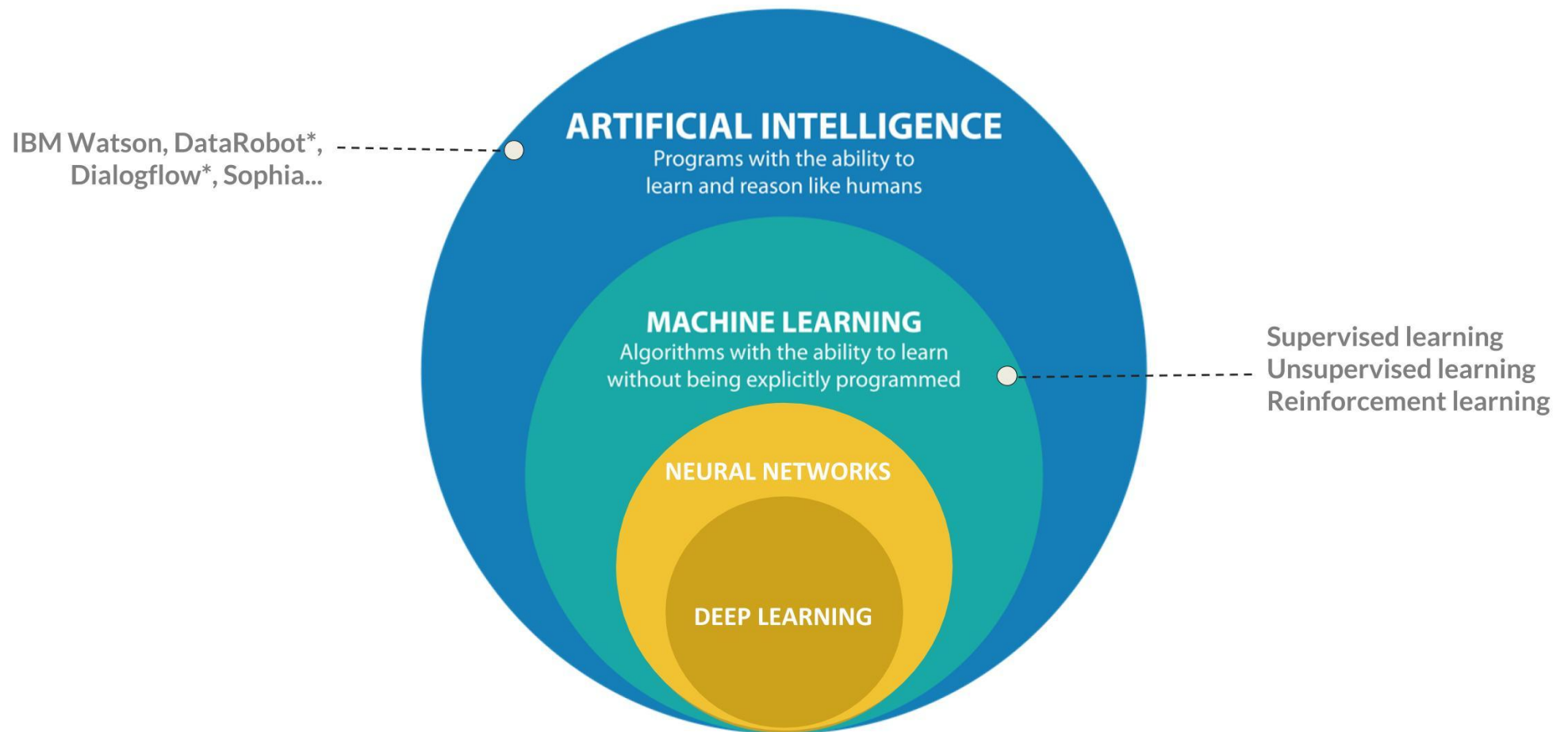
Paulo Costa

Desenvolvedor de Software - NATI/UNIFOR
Consultor técnico de Software - Infuture Technology
Founder - Recogflow

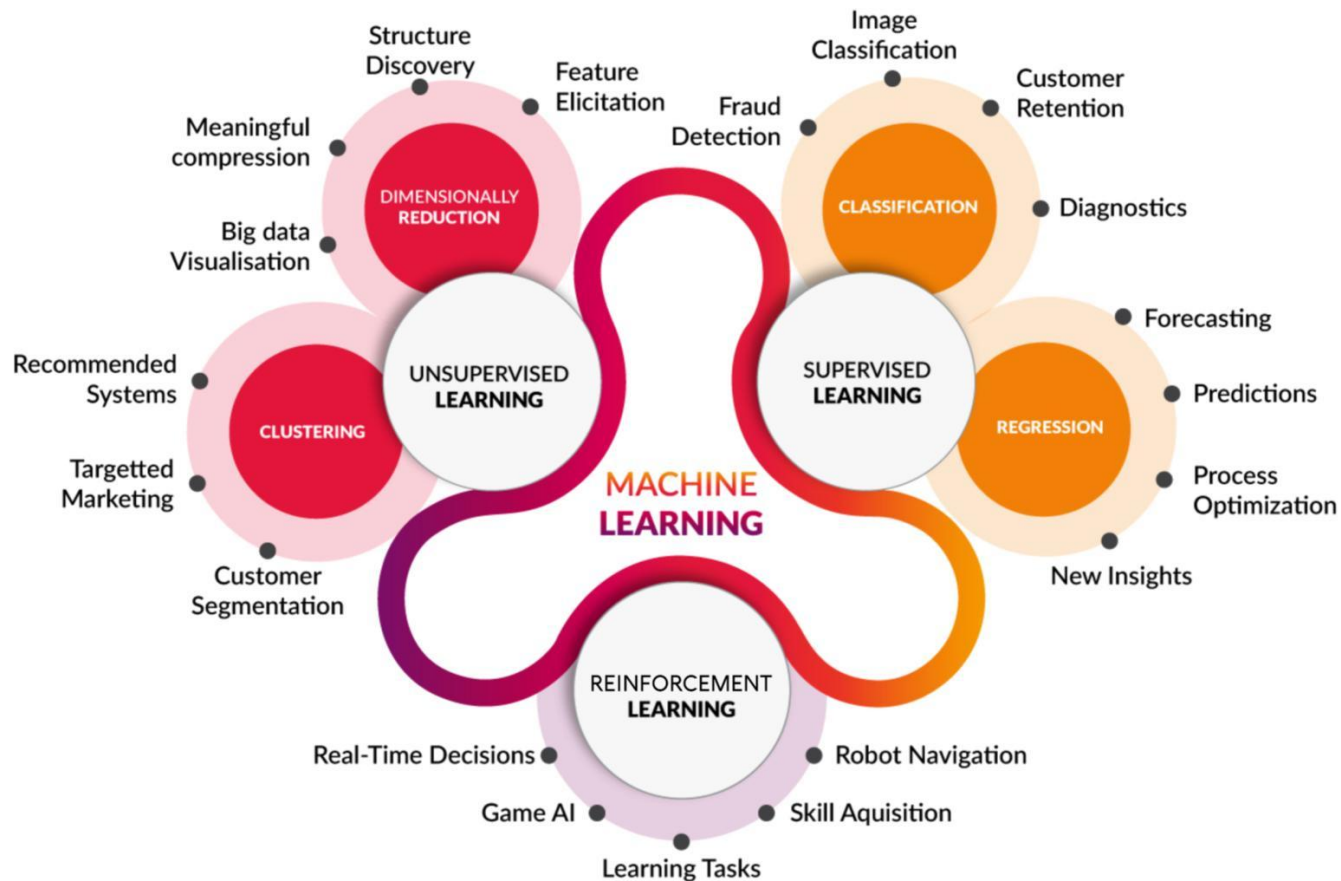




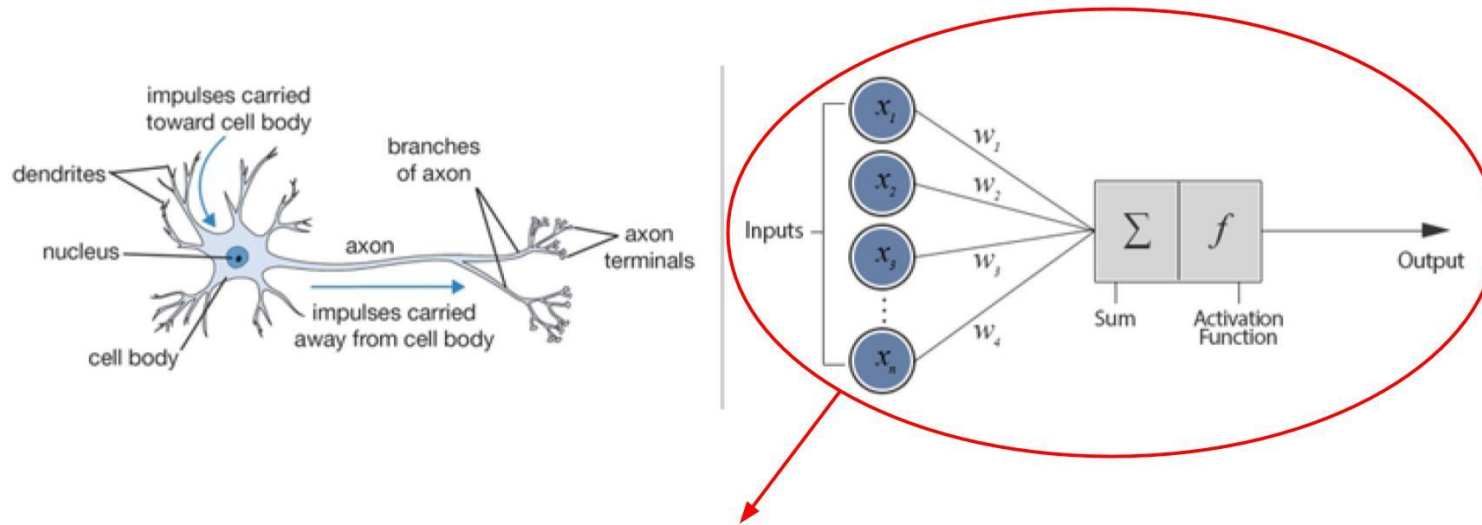
Contexto da Ciência da Computação



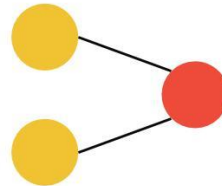
Compreendendo um pouco ML



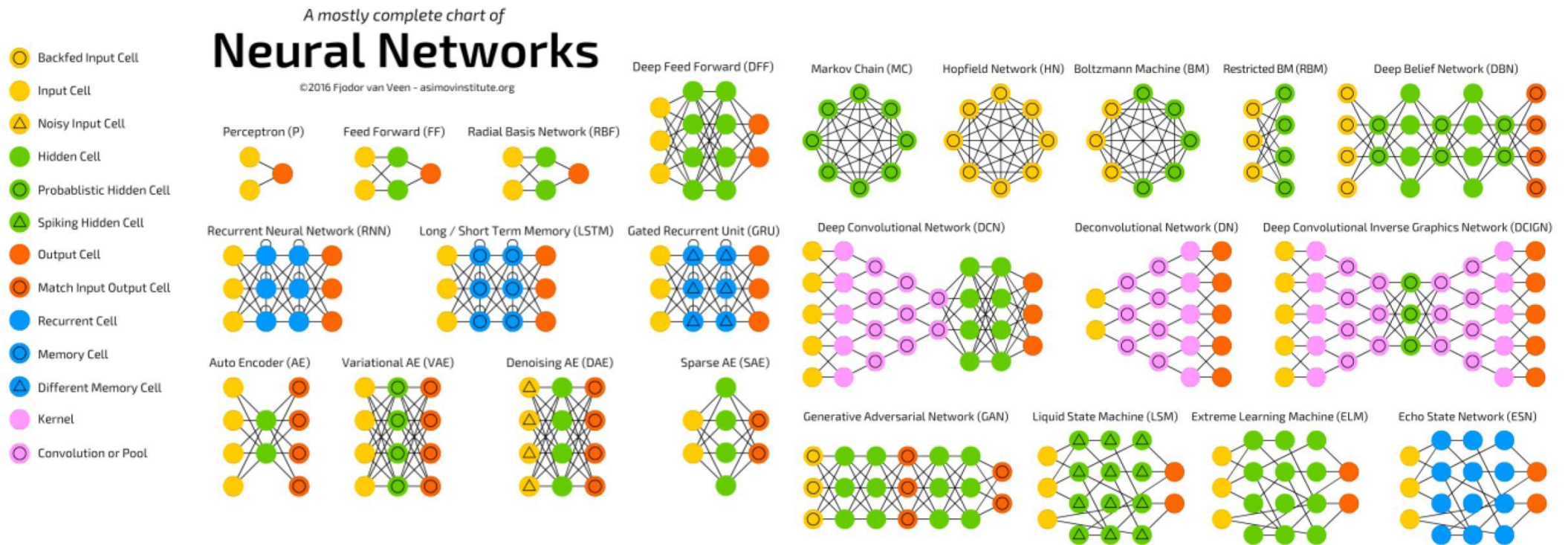
Redes neurais artificiais

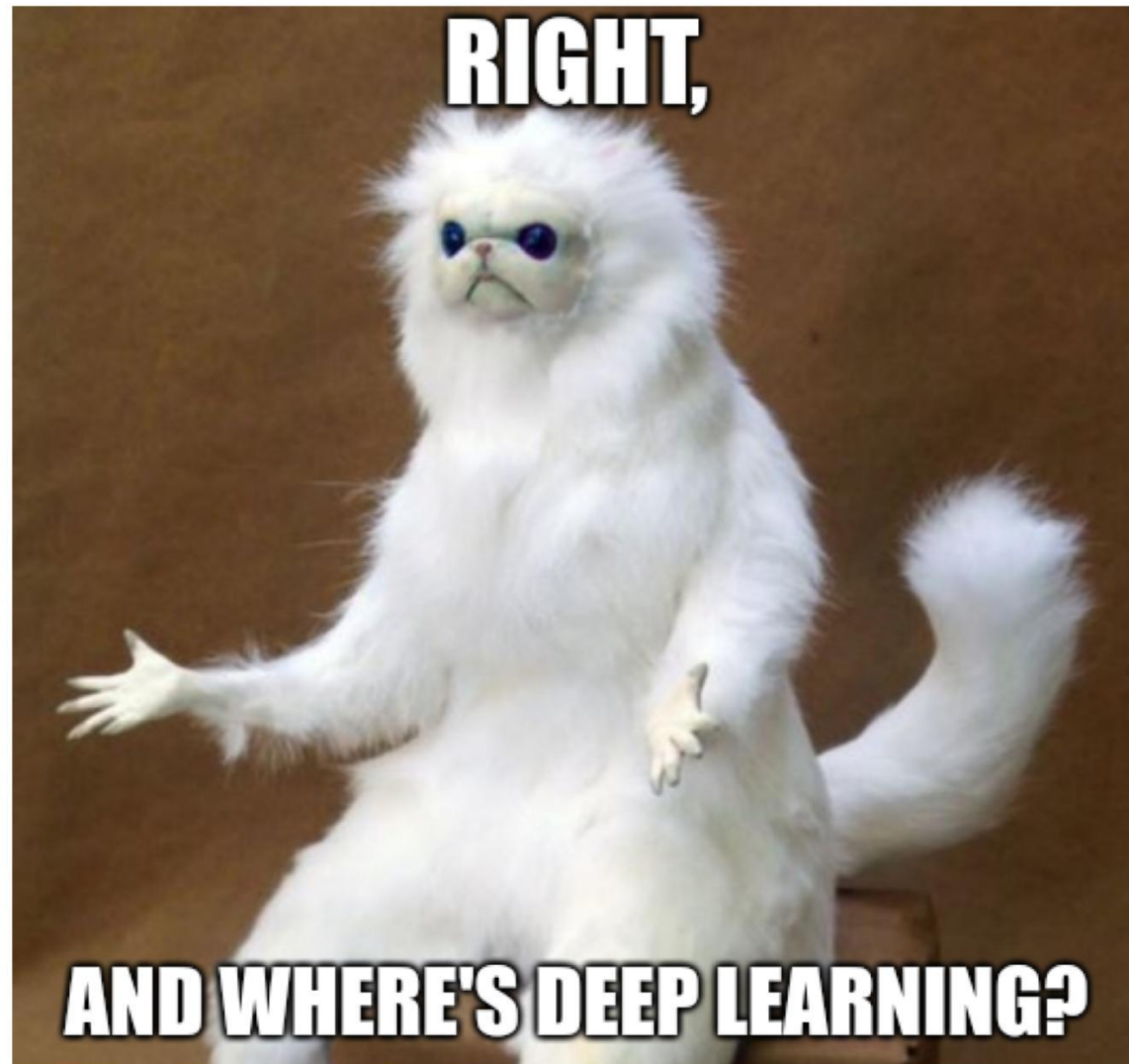


Perceptron



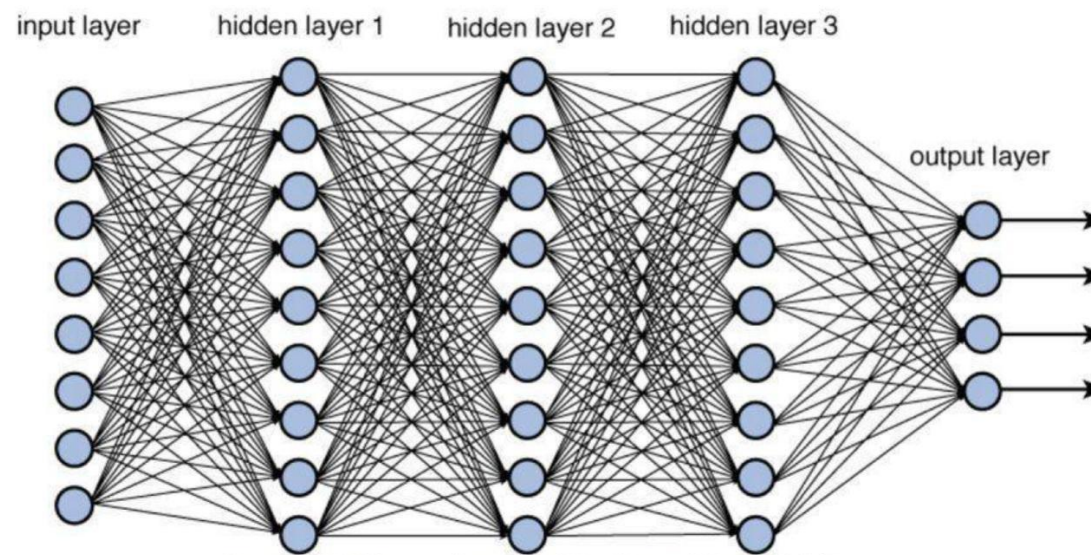
Arquiteturas de redes neurais artificiais





Definição técnica de Deep Learning

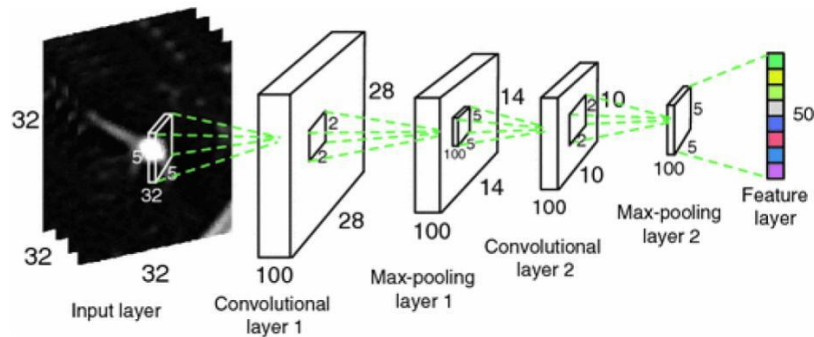
“Deep Learning é uma classe de algoritmos de machine learning na forma de uma rede neural que usa uma cascata de camadas para extrair recursos de dados e fazer estimativas preditivas sobre novos dados.” - Melanie Swan



Dois dos principais tipos de redes neurais DL

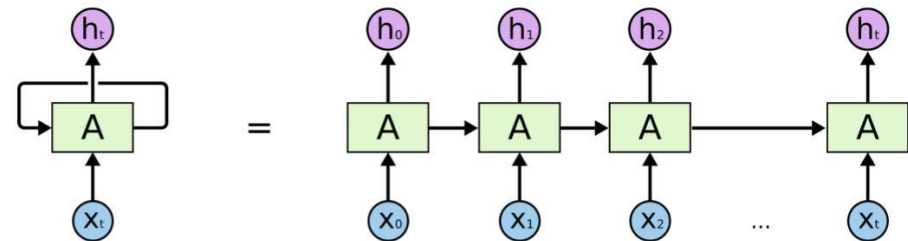
- **Redes neurais convolucionais (CNN)**

- Reconhecimento de imagens
- Processamento de vídeos



- **Redes neurais recorrentes (RNN)**

- Reconhecimento de fala, texto e áudio

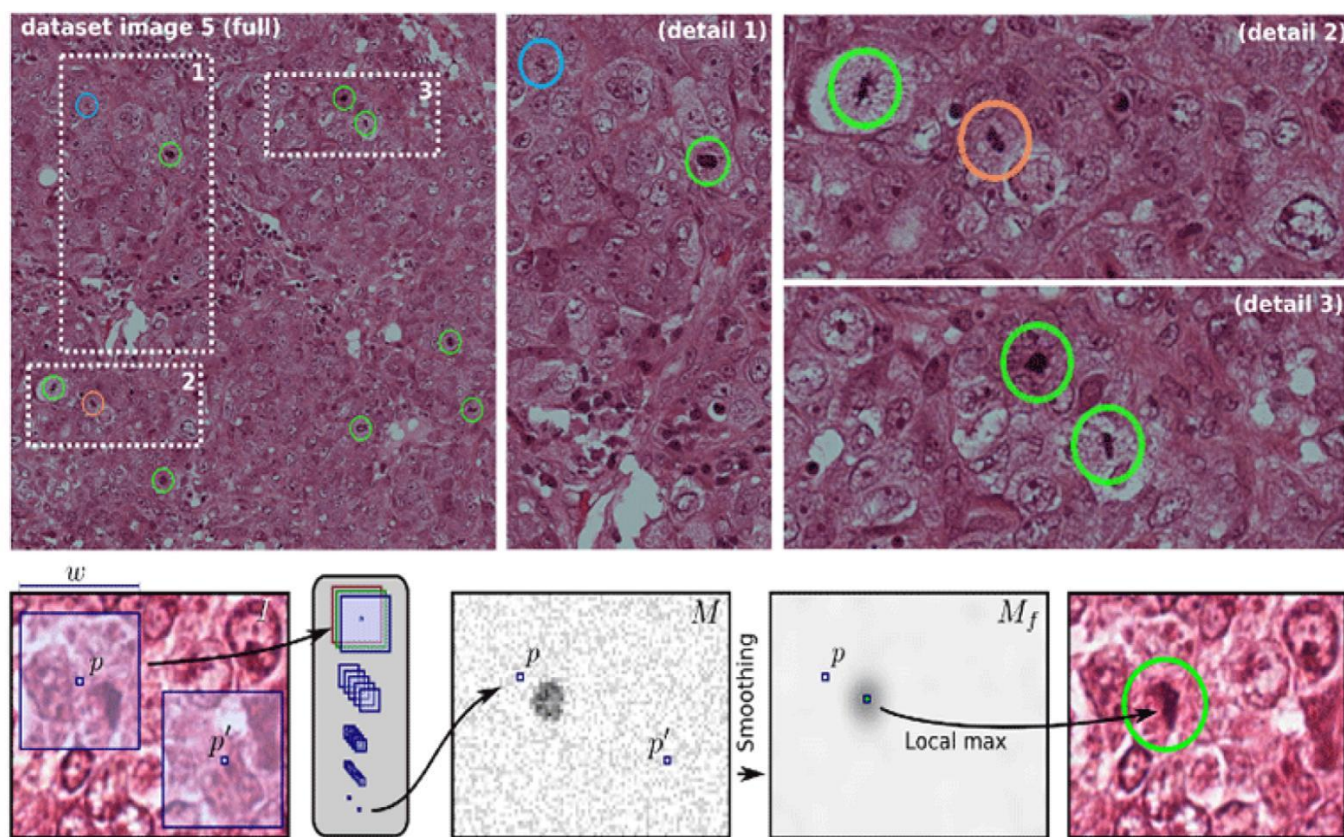


Aplicações que utilizam DL



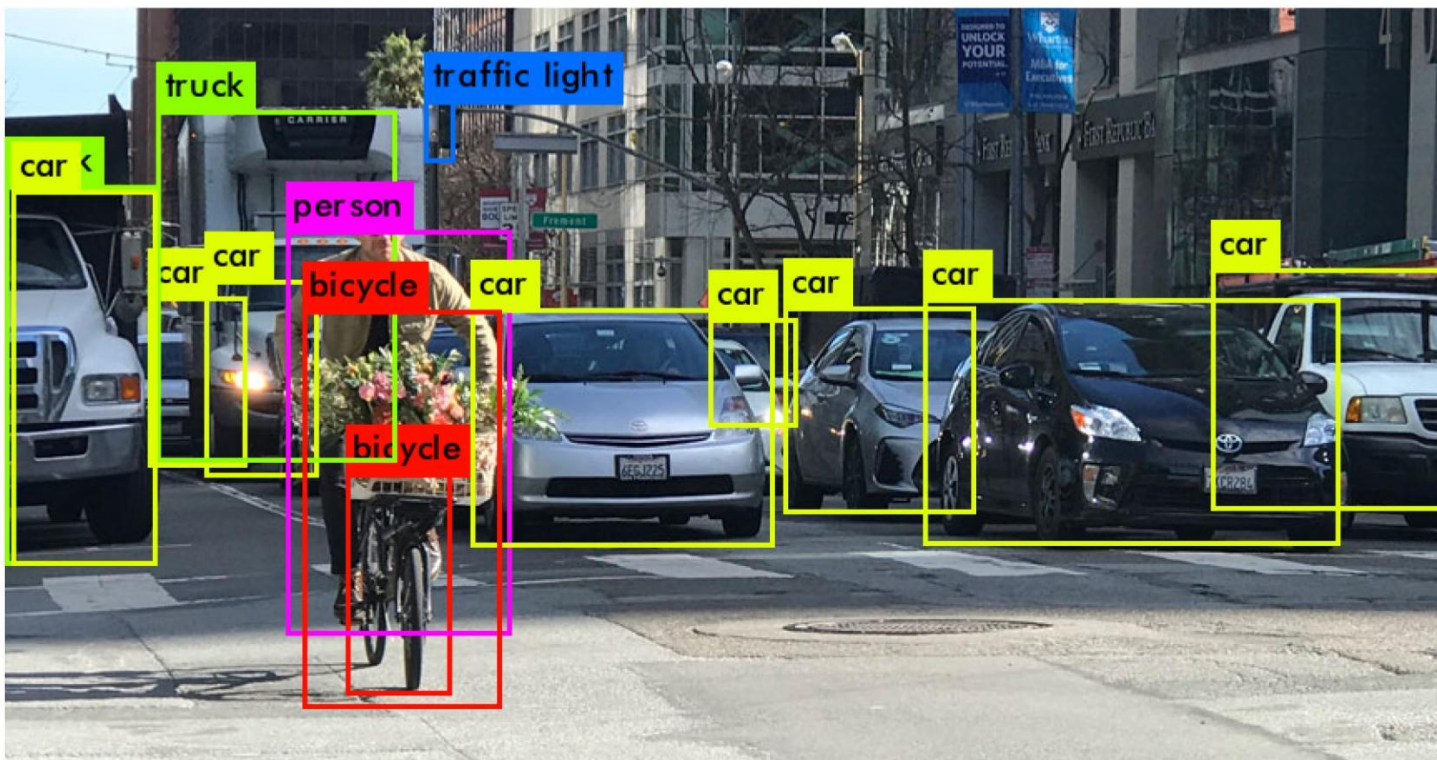
Carros autônomos

Aplicações que utilizam DL



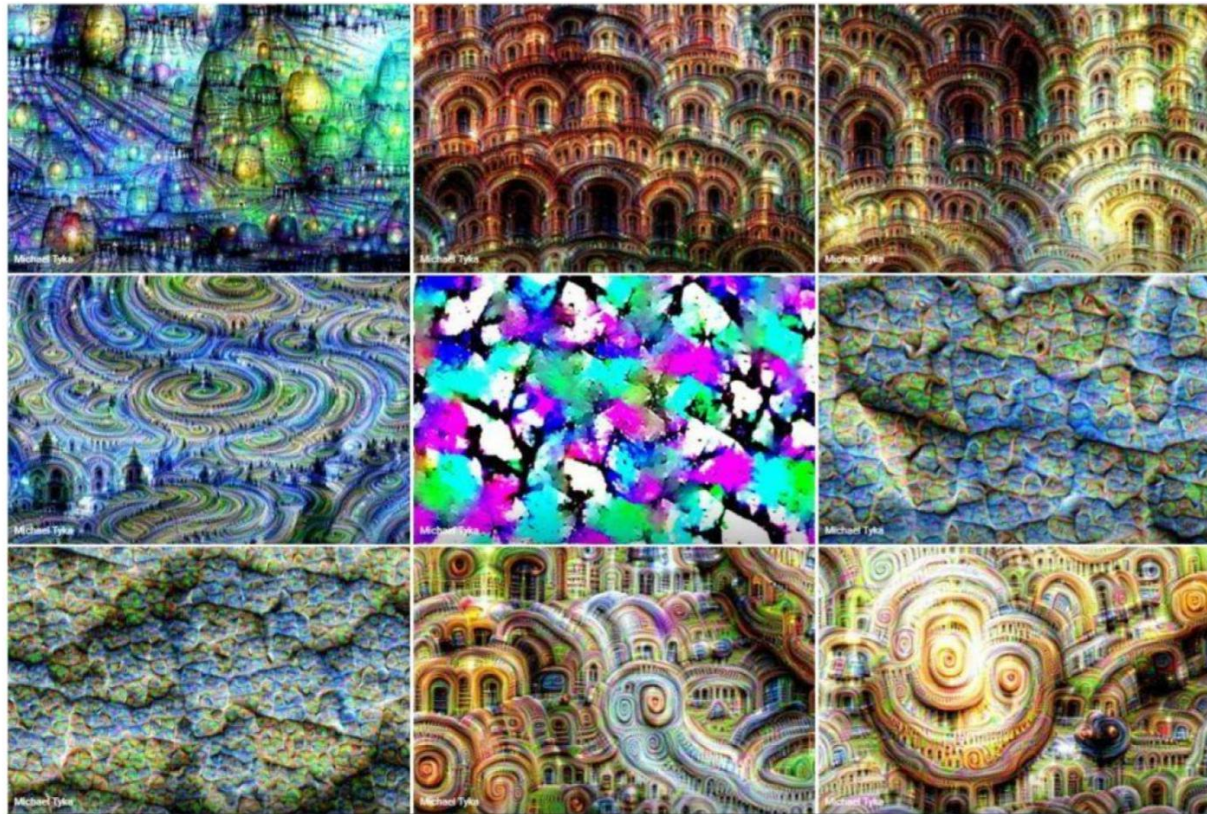
Detecção de mitose em imagens histológicas de câncer de mama

Aplicações que utilizam DL



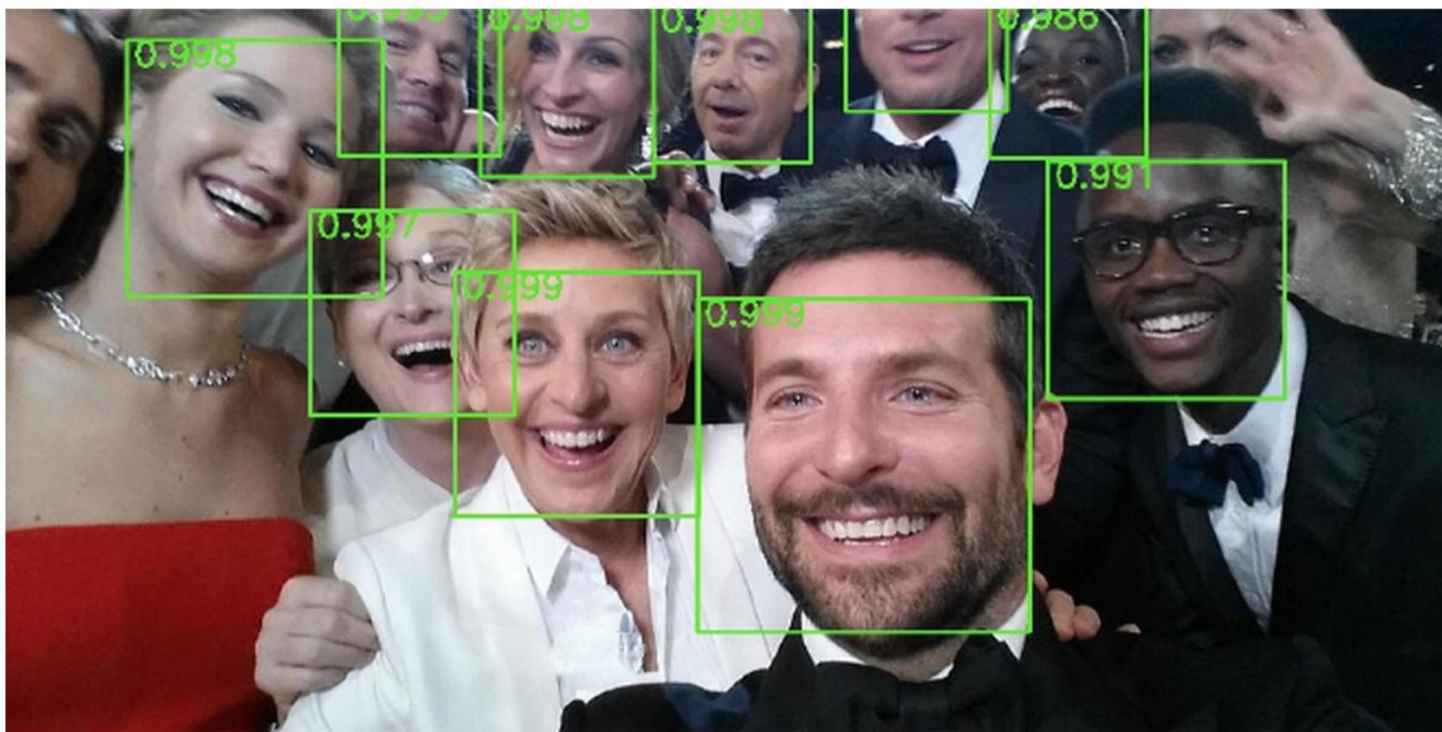
Reconhecimento de objetos

Aplicações que utilizam DL



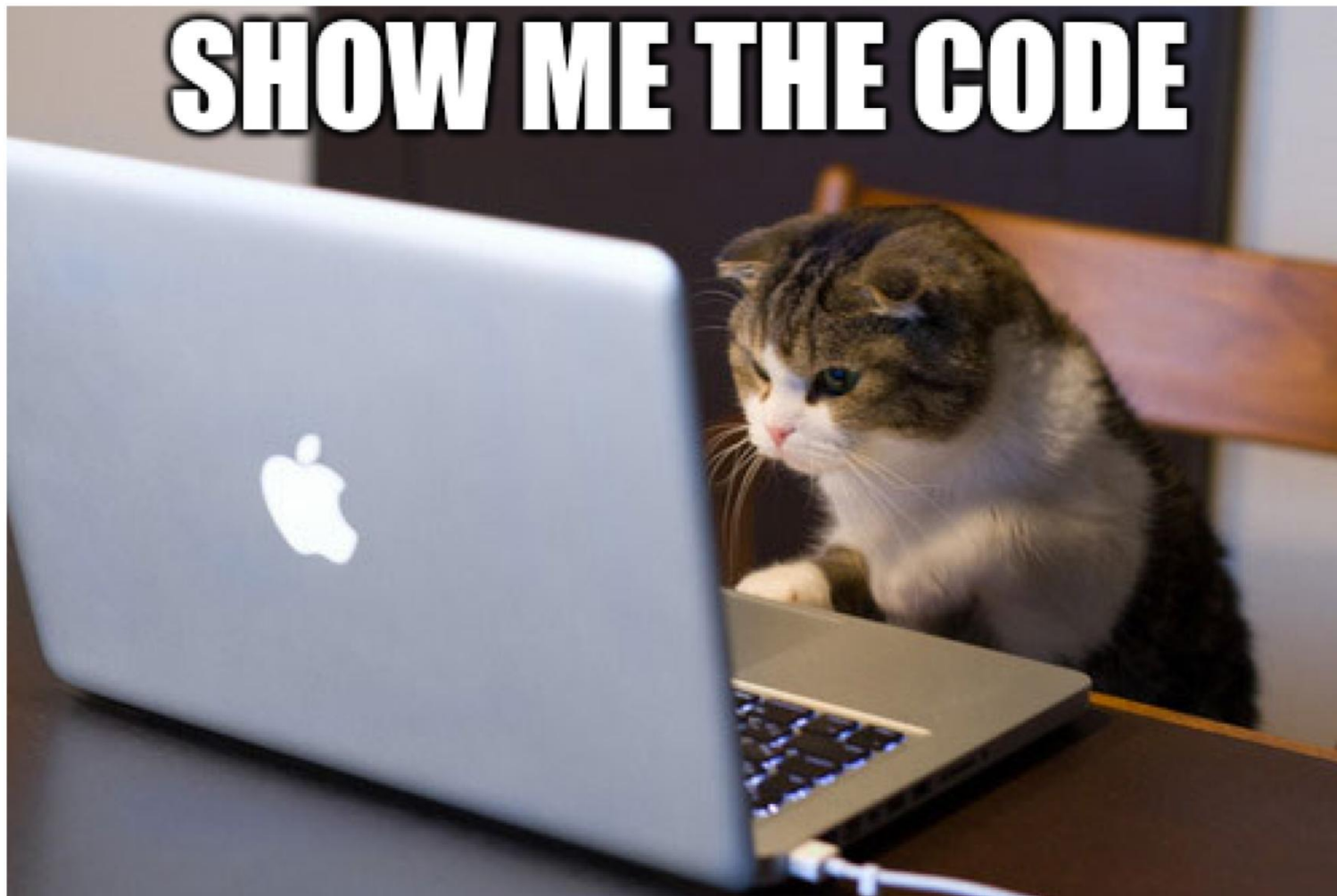
Criação/replicação de estilos em imagens

Aplicações que utilizam DL



Reconhecimento facial de pessoas em fotos e vídeos

SHOW ME THE CODE



Links e referências

Arquivos da palestra: <https://github.com/paulowdev/palestra-deep-learning-com-python>

Recogflow: <https://github.com/recogflow/recogflow>

Datasets: <https://archive.ics.uci.edu/ml/datasets.html>

Arquitetura redes neurais: <http://www.asimovinstitute.org/neural-network-zoo/>

Mindmap Machine Learning: <https://github.com/dformoso/machine-learning-mindmap>

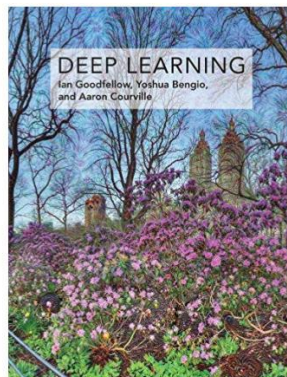
Dicas de estudo:

- <http://deeplearningbook.com.br/> (Português)

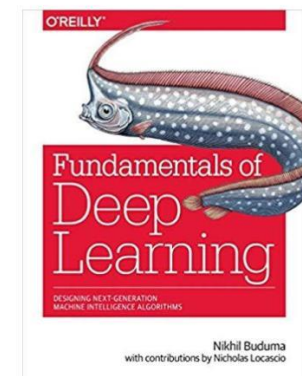
- Livros:

Deep Learning

Autores: Ian Goodfellow,
Yoshua Bengio, Aaron Courville



Fundamentals of Deep Learning
O'Reilly - Nikhil Buduma



Any questions ?



<https://www.linkedin.com/in/paulowdev>



<https://github.com/paulowdev>



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