DISTRIBUITED LEDGER TECHNOLOGY (DLT)

ARTIFICIAL INTELLIGENCE (AI)

EXTENDED REALITY (XR)

QUANTUM COMPUTING (QC)





Artificial Intelligence

Creating the Future





1. Subdisciplina del campo de la Informática, que busca la creación de máquinas que puedan imitar comportamientos inteligentes.

(dot csv)

Usado por primera vez: 1955



Inteligencia Artificial

Robótica

Procesamiento del lenguaje natural Árboles de decisión Aprendizaje automático (Machine Learning)

Modelos de regresión Modelos de clasificación

Clusterización

Deep Learning

CNN

Voz



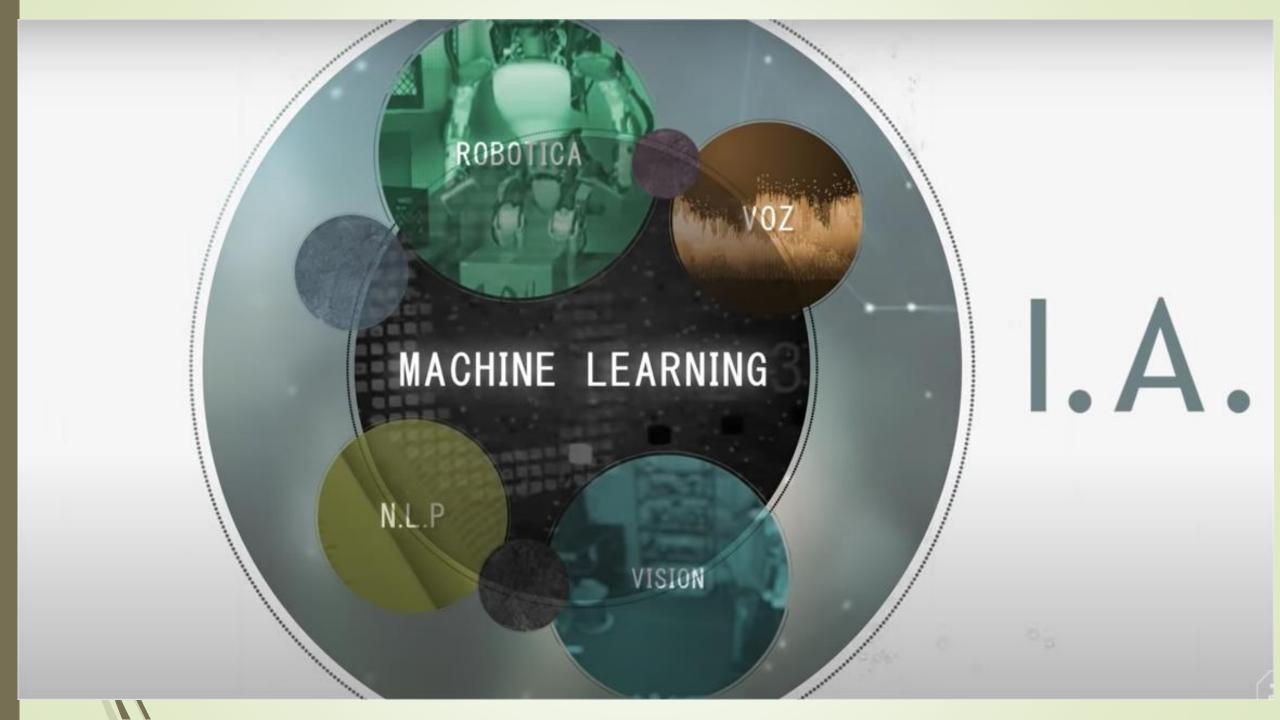
MACHINE LEARNING

Aprendizaje Automático

1. Rama del campo de la Inteligencia Artificial, que busca como dotar a las máquinas de capacidad de aprendizaje.

Usado por primera vez. 1959





TYPES OF ARTIFICIAL INTELLIGENCE **DEEP LEARNING MACHINE LEARNING** PREDICTIVE ANALYTICS **TRANSLATION** NATURAL LANGUAGE PROCESSING CLASSIFICATION, CLUSTERING INFORMATION EXTRACTION **SPEECH** SPEECH TO TEXT TEXT TO SPEECH Nearest Neighbor INFERENCE ENGINE **EXPERT SYSTEMS** Naïve Bayes KNOWLEDGE BASE Classifiers **Decision Trees** Supervised PLANNING, SCHEDULING, OPTIMIZATION REDUCTION Learners CLASSICAL Regression Trees Predictors PROBABILISTIC, TEMPORAL **Model Trees** ROBOTICS **REACTIVE MACHINES** Machine LIMITED MEMORY Neural Networks Learning **Dual Use** THEORY OF MIND, SELF-AWARE VISION Support Vector Mach. **IMAGE RECOGNITION** MACHINE VISION Pattern Detection Unsupervised Associative Learners Learners Artificial Intelligence Clustering And K-means Intelligent Systems **Expert Systems** Knowledge-Based Intelligent DA PARADIGMAS DE APRENDIZAJE Systems Intelligent DSS

Intelligent Agents

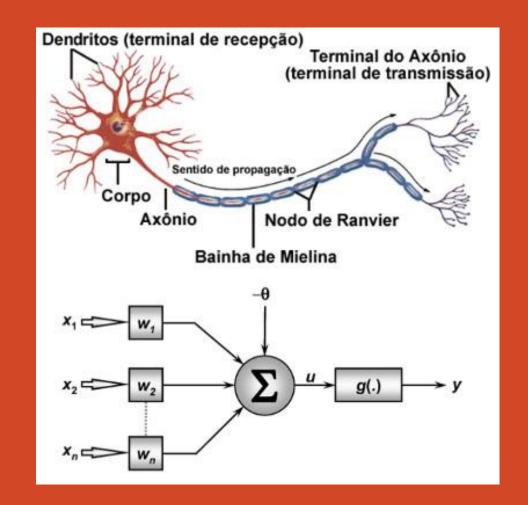


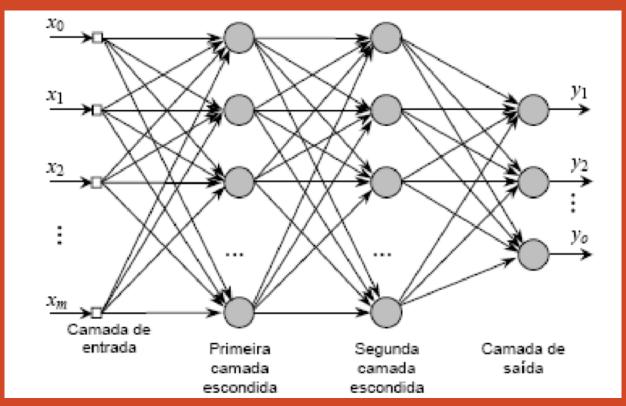
APR. REFORZADO

APR. NO SUPERVISADO

APR. SUPERVISADO

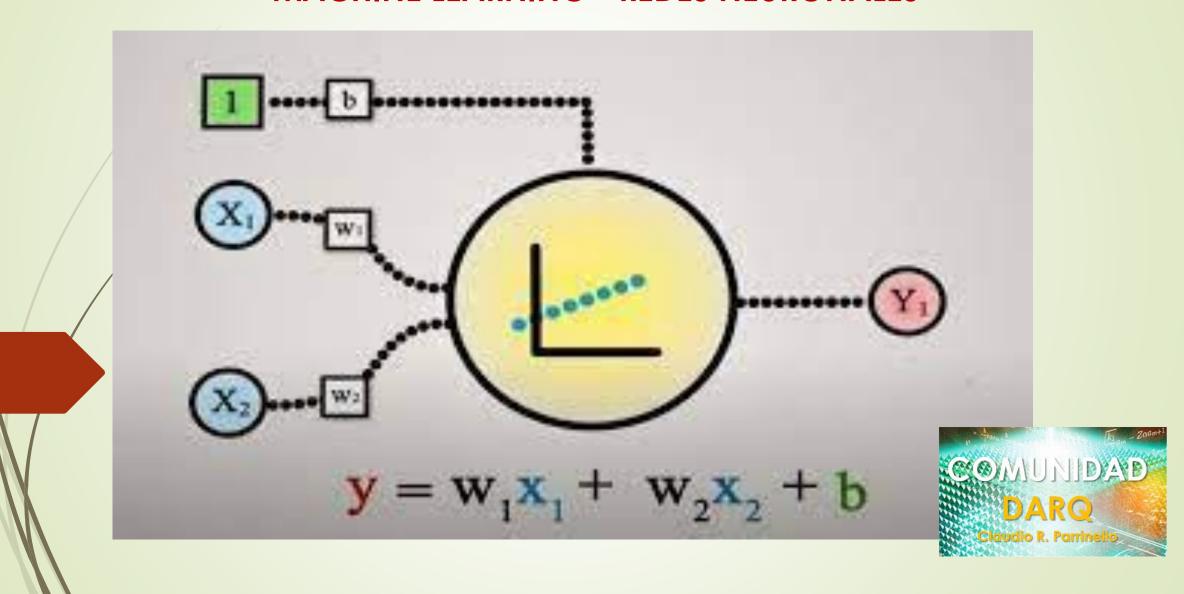
MACHINE LEARNING - REDES NEURONALES





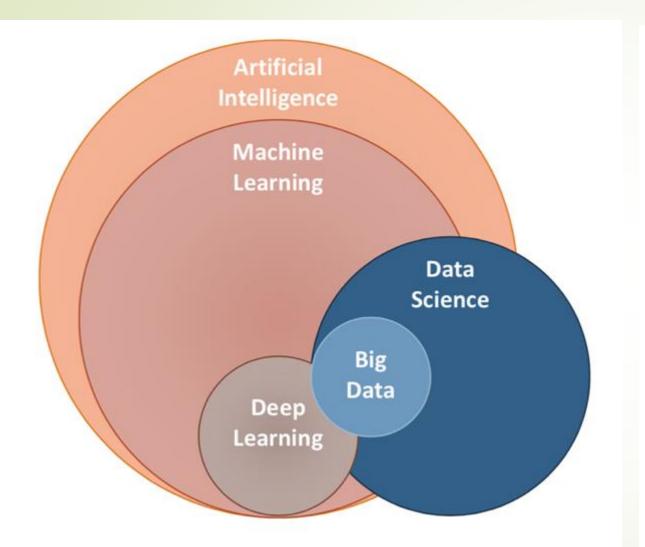


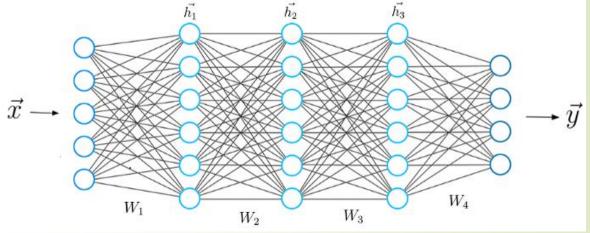
MACHINE LEARNING - REDES NEURONALES

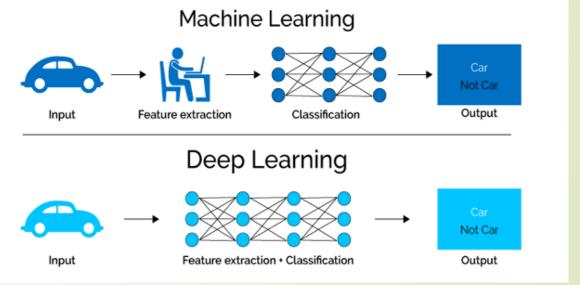


DEEP LEARNING









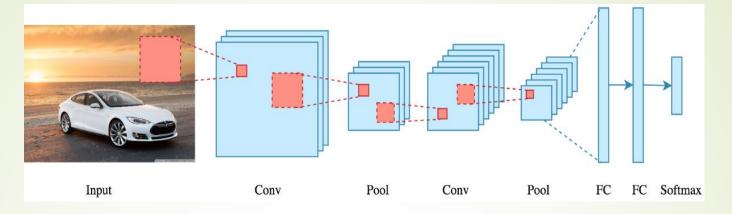
REDES NEURONALES CONVOLUCIONALES



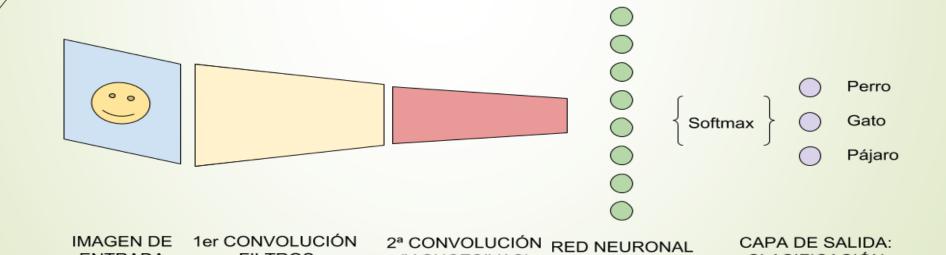
CLASIFICACIÓN

ONE-HOT

ENCODED



ARQUITECTURA DE UNA CNN



(Y SUCESIVAS)

MULTICAPA

(fully connected)

ENTRADA

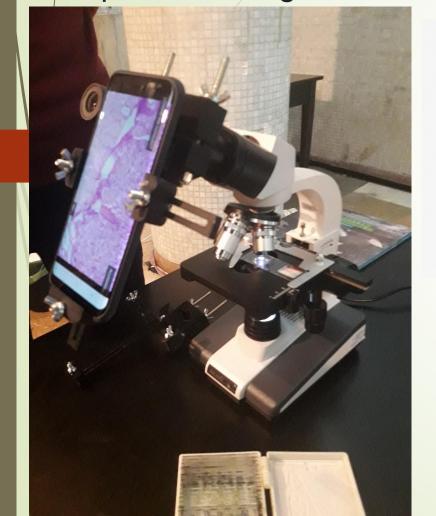
FILTROS

SUBSAMPLING

RELU

(GANs)? ¿Qué son las redes generativas adversarias

También llamadas redes generativas antagónicas (RGAs), las redes generativas adversarias son un sistema de aprendizaje no supervisado en que dos inteligencias artificiales compiten entre sí para lograr un objetivo.









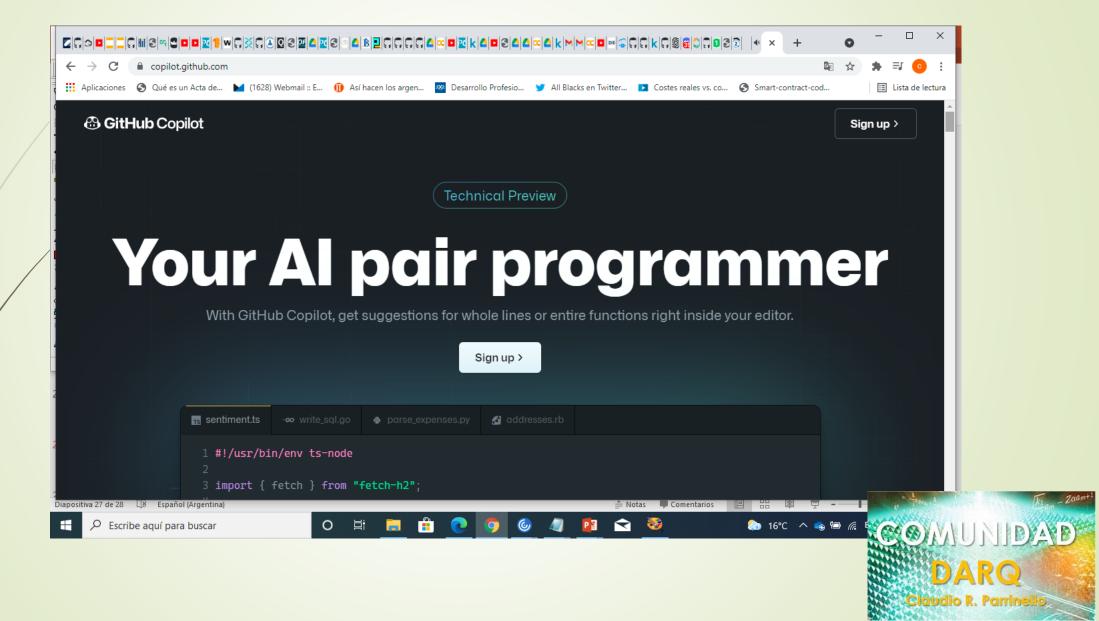


¿Es esta lA el FIN de los DISEÑADORES GRÁFICOS? ¿Puede la lA ser CREATIVA? -(DALL-E)



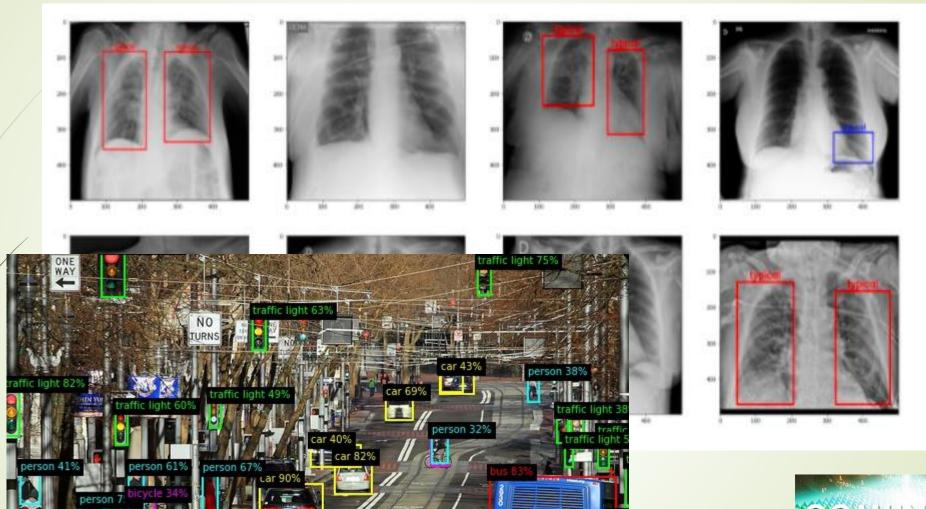


¿Es GITHUB Copilot el FIN de los PROGRAMADORES?



COMPETENCIA INTERNACIONAL KAGGLE

CENTRO GRADUADOS DE INGENIERIA (YOLOV5)





TRANSFER LEARNING

https://github.com/titu1994/Neural-Style-Transfer











NATURAL LANGUAGE PROCESSING

Usos del PLN

- •Resumen de textos, consiste en encontrar la idea principal del texto e ignorar lo que no sea relevante.
- •ChatBots, deberán ser capaces de mantener una charla fluida con el usuario y responder a sus preguntas de manera automática.
- Generación automática de keywords y generación de textos
- •Reconocimiento de entidades, encontrar personas, entidades comerciales o gubernamentales, países, ciudades, marcas...etc.
- •Análisis de sentimientos, deberá comprender si un tweet, una review o comentario es positivo o negativo y en qué magnitud (neutro). Muy utilizado en redes sociales, en política, opiniones de productos y en motores de recomendación.
- •Machine Translation, Ofrece la posibilidad traducir el texto o el audio de un idioma a otro rápidamente y cada vez con más exactitud.
- •Clasificación automática de textos, en categorías pre-existentes, detectar temas recurrentes y crear las categorías.

https://www.baoss.es/procesamiento-del-lenguaje-natural-pln-con-python/

Gainfy

Healthcare is one of those fields in which AI and blockchain were meant to pair up. Gainfy embarked on a mission to take the healthcare industry to the next level by taking a traditional Blockchain solution for managing patient data and infusing it with AI analysis to provide decision makers with real-time insights.

As of today, the New York-based company leverages not just blockchain and AI but also ML and IoT tech to enhance the experience of more than 99 million users.

The platform implements these technologies in different ways, such as an identity verification system, digital urgent care, data encryption tool, a database for clinical trials, and a crypto payment system. In a nutshell, Gainfy empowers patients, providers, and payers by attempting to disrupt an old-fashioned industry with new technology, giving all stakeholders a better Healthcare experience in the process.

SingularityNET

The brilliant brains behind SingularityNET are also the ones who created Sophia, a social humanoid robot, and the first robot ever to receive citizenship of any country (she became a citizen of Saudi Arabia in 2017).

The team harnessed the power of AI blockchain to create the world's only decentralized AI platform, a platform that can be used by anyone. The purpose behind creating a decentralized AI marketplace is to encourage the funding and development of AI projects.

SingularityNET focuses on three crucial areas of Al services: Cloud Robotics, Cybersecurity, and Biomedical Research. They provide a secure platform where companies and developers can create Al projects and sell their algorithms, services, tools, and data, and exchange them for the platform AGI token.

In short, SingularityNET is facilitating researchers who develop AI tools and connecting them with businesses that require such customized AI solutions.

Blackbird.Al

In this age of mass information, it has become imperative to fight fake news. As the danger of misinformation is seeping into society, Blackbird.Al was built to check the credibility of news and filter out misinformation.

The San Francisco-based company leverages AI to organize and filter content by incorporating credibility indicators to find out news that contains hate speech or misinformation and respond to any new threat before it causes harm to governments, organizations, or individuals.

The use of blockchain enables the platform to store verified content created by crowd-sourced reports and AI in a digital, unchangeable ledger.

As of today, Blackbird AI is already using its platform to fight fake news on the COVID-19 pandemic.

Neureal

Neureal is a promising artificial intelligence solution provider that leverages predictive AI, blockchain, and cloud technologies to forecast the future and predict anything from Google searches to the stock market. What makes this Salt Lake City-based company so impressive is how it offers power tools (currently available only to big organizations) to regular people.

According to their website, these tools boast impressive use cases like 'predicting a heart attack accurately enough to save a life' and 'predicting a hurricane accurately enough to move vulnerable people out of harm's way'.

As it requires a colossal amount of data to predict the future, Neureal promises accuracy by harnessing computation via blockchain technology to create predictors for regular users.

Moreover, the computer networks point out trends in successful predictions and log them into the blockchain ledger. There is a reward for accurate predictors and they are paid in Neurons (the company's own cryptocurrency).

VectorSpace

Vectorspace (VXV token) is the last project on our list, but certainly not the least.

Backed by a team of distinguished engineers, this San Francisco-based company has partnerships with household names such as Microsoft, Amazon, Standard & Poor's and even the CERN (home of the world's largest small-particle accelerator).

Vectorspace is born from the belief that while data might be the new oil, the dataset is the refined gasoline that powers every Machine Learning (ML) and AI operation.

By adding extra layers to such datasets, they create concepts they call 'Smart Baskets'. Smart baskets are groups of assets such as equities or cryptocurrencies that share known and hidden relationships with each other.

Vectorspace is one of our personal favourites due to their winning combination of a strong team, academically-backed technology and solid partnerships.





De AI a AC Llegaremos a la conciencia artificial? La habitación china

La habitación china es un experimento mental, propuesto originalmente por John Searle y popularizado por Roger Penrose, mediante el cual se trata de rebatir la validez del test de Turing y de la creencia de que el pensamiento es simplemente computación. Searle se enfrenta a la analogía entre mente y ordenador cuando se trata de abordar la cuestión de la conciencia. La mente implica no solo la manipulación de símbolos (grarnática o sintaxis), sino que además posee una capacidad semántica para darse cuenta, o estar consciente, de los significados de los símbolos.

