

Masterclass

by IDATHA Academy



KEEP
LEARNING



Contenido

AGENDA

REPASO HISTÓRICO

CIENCIAS DE DATOS, BIG DATA

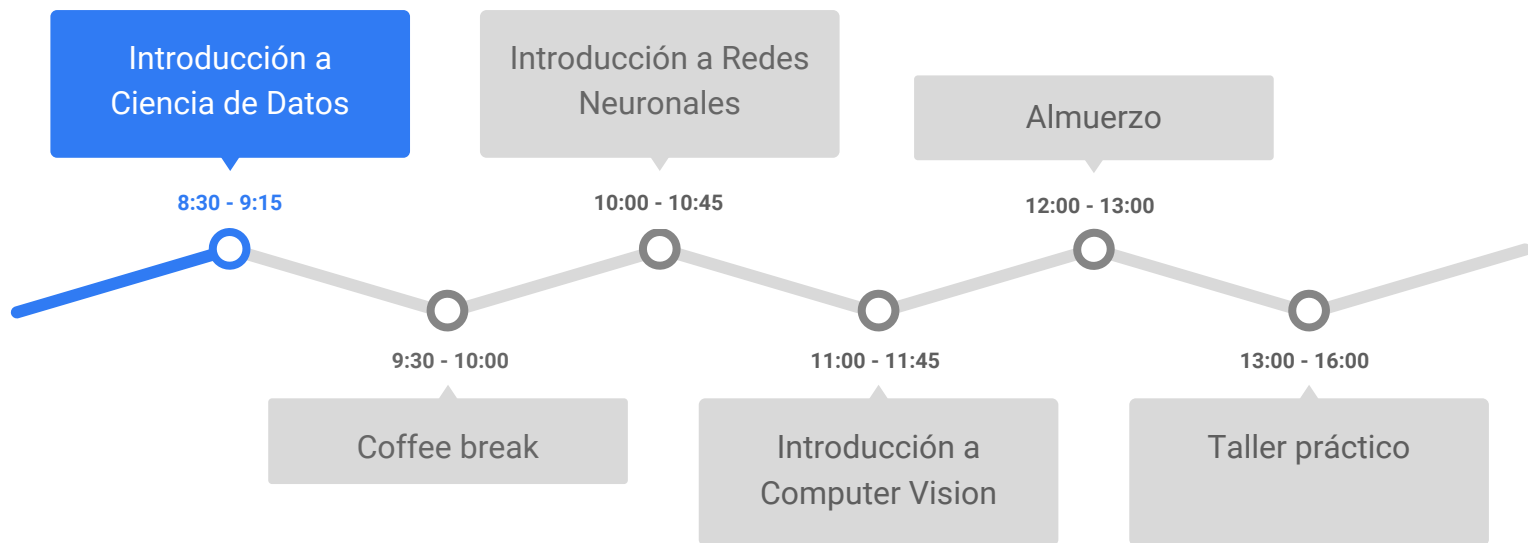
CONCEPTO DE APRENDIZAJE

APRENDIZAJE AUTOMÁTICO

TIPOS DE APRENDIZAJE AUTOMÁTICO

EJEMPLOS Y APLICACIONES







2

(Taken from MIND : a Quarterly Review of Psychology and
Philosophy. Vol. LIX. , N.S., No. 236, October , 1950.)

COMPUTING MACHINERY AND INTELLIGENCE

by

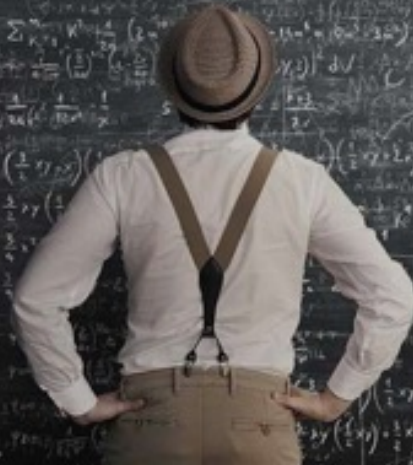
A. M. TURING.

1. The Imitation Game.

I propose to consider the question, 'Can machines think?' This should begin with definitions of the meaning of the terms 'machine' and 'think'. The definitions might be framed so as to reflect so far as possible the normal use of the words, but this attitude is dangerous. If the meaning of the words 'machine' and 'think' are to be found by examining how they are commonly used it is difficult to escape the conclusion that the meaning and the answer to the question, 'Can machines think?' is to be sought in a statistical survey such as a Gallup poll. But this is absurd. Instead of attempting such a definition I shall replace the question by another, which is closely related to it and is expressed in relatively unambiguous words.

The new form of the problem can be described in terms of a game which we call the 'imitation game'. It is played with three people, a man (A), a woman (B), and an interrogator (C) who may be of either sex. The interrogator stays in a room apart from the other two. The object of the game for the interrogator is to determine which of the other two is the man and which is the woman. He knows them by labels X and Y, and at the end of the game he says either 'X is A and Y is B' or 'X is B and Y is A'. The interrogator is allowed to put questions to A and B thus:

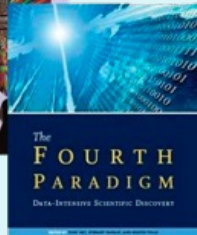
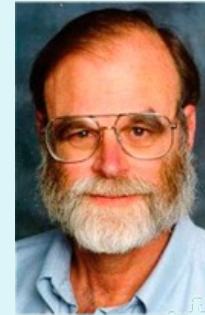
¿Ciencia de datos?
¿Científicos de datos?
¿Big data?



Ciencia de datos

La **ciencia de datos** es un campo **interdisciplinario** que involucra **métodos científicos**, procesos y sistemas para extraer conocimiento o un mejor entendimiento de datos

"Cuarto paradigma" de la ciencia (empírico, teórico, computacional y ahora basado en datos) y afirmó que "todo lo relacionado con la ciencia está cambiando debido al impacto de la tecnología de la información y el diluvio de datos", **Jim Gray**

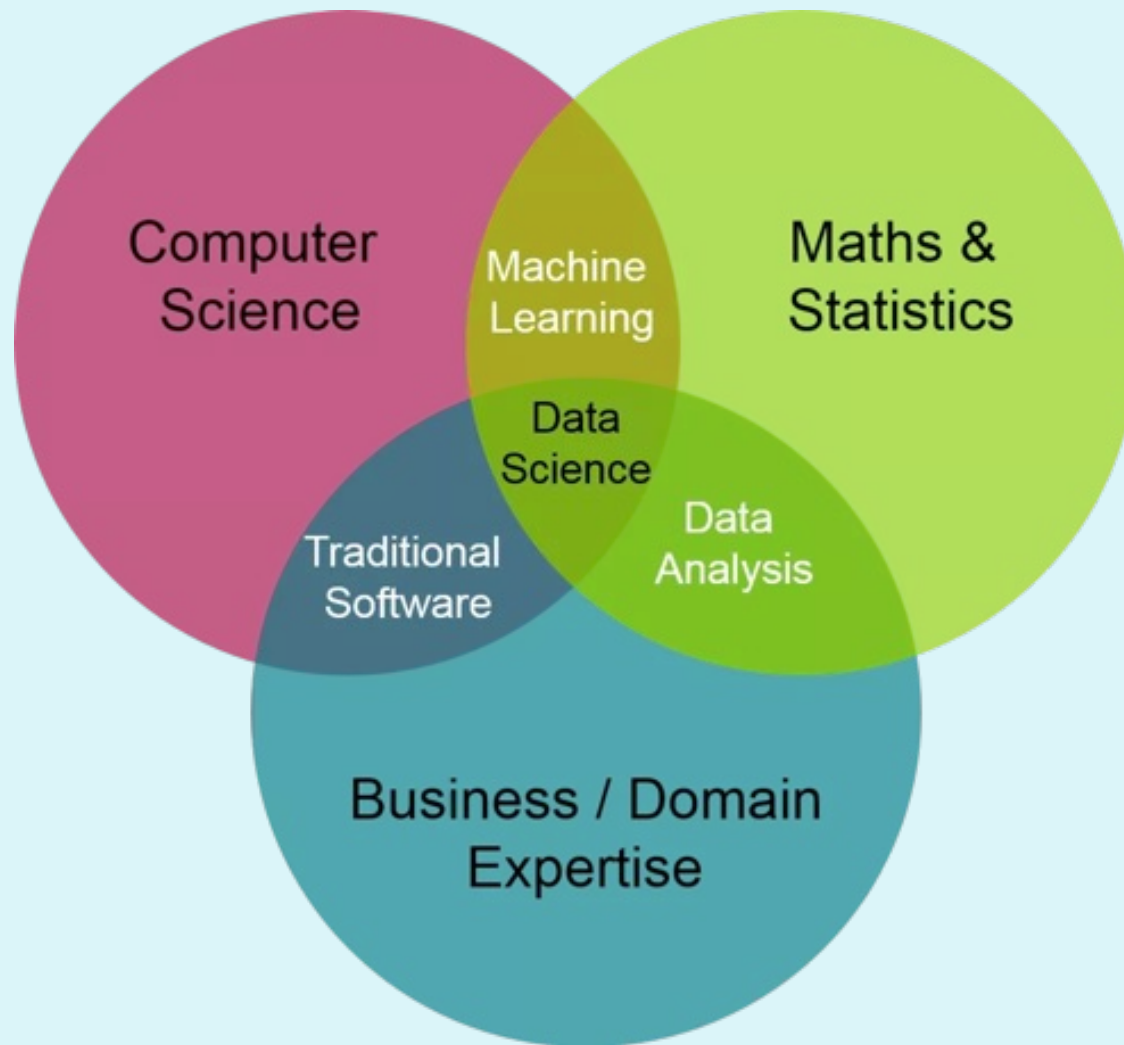


Paradigmas de la ciencia

- Hace mil años:
la ciencia era **empírica**
descripción de fenómenos naturales
 - Últimos siglos:
rama **teórica**
utilización de modelos, generalizaciones
 - Últimas décadas:
una rama **computacional**
simulación de fenómenos complejos
 - Hoy: la **exploración de datos** (e-ciencia)
unificación de teoría, experimentación y simulación
- Los datos se capturan mediante instrumentos o se generan mediante simulador
 - Procesados mediante software
 - La información/conocimientos se almacenan en computadora
 - El científico analiza la base de datos o los archivos mediante administración de datos y estadística

$$\left(\frac{\dot{a}}{a}\right)^2 = \frac{4\pi G \rho}{3} - K \frac{c^2}{a^2}$$





2021 This Is What Happens In An Internet Minute



Mantenimiento Predictivo

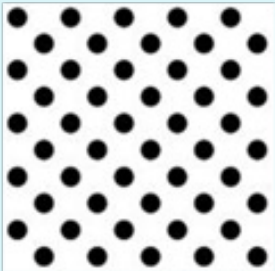
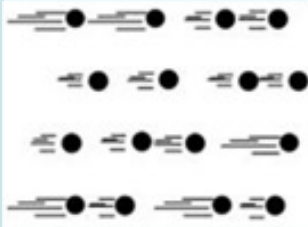
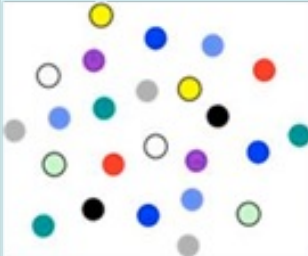


300 sensores

200 GB de datos por día

Se transmiten y analizan en Dinamarca



BIG DATA

Volume	Velocity	Variety	Veracity	Value
				
Data at Rest Terabytes to Exabytes of existing data to process	Data in Motion Streaming data, requiring milliseconds to seconds to respond	Data in Many Forms Structured, unstructured, text, multimedia,...	Data in Doubt Uncertainty due to data inconsistency & incompleteness, ambiguities, latency, deception, model approximations	Data into Money Business models can be associated to the data



MALAMADO

Receta: Inés De Los Santos

2 oz de Whisky Bourbon

1 oz de Malamado Viognier

1 dash de almíbar

2 gajos de lima

2 gajos de limón

Gaseosa limón

Método: batido





























































Vaso super highball

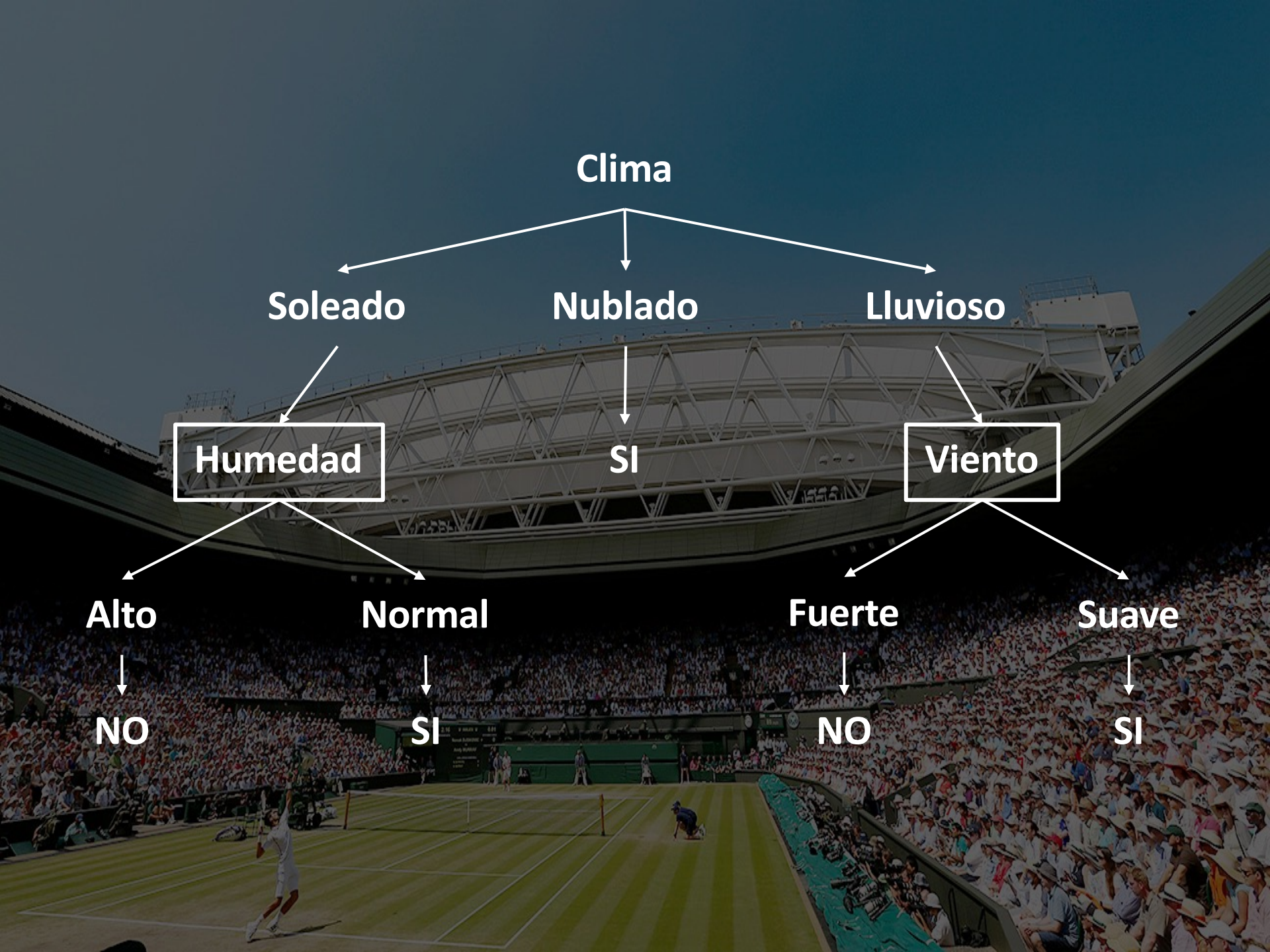


En una coctelera aplastar los gajos de lima y limón, luego colocar los hielos y batir todos los ingredientes (menos la gaseosa). Servir en un vaso super highball y terminar con gaseosa lima-limón.



ALGORITMO

HELP press F1 DISPLAY press F2	COMMANDS Takeback Forward Analysis	Invert Replay Print Easy	Compute 2-player Next-best Quit	Level Sound Games	Hint Demo Wait	SETUP press F3 NEW GAME press \$																																																																
PLAYER 00:00:03 1	PROGRAM 00:00:00	<table><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>																																																																				
																																																																						
																																																																						
																																																																						
																																																																						
YOUR MOVE																																																																						
LEVEL 3 6 Sec		CHAMPIONSHIP																																																																				



Clima

Soleado

Nublado

Lluvioso

Humedad

SI

Viento

Alto

Normal

Fuerte

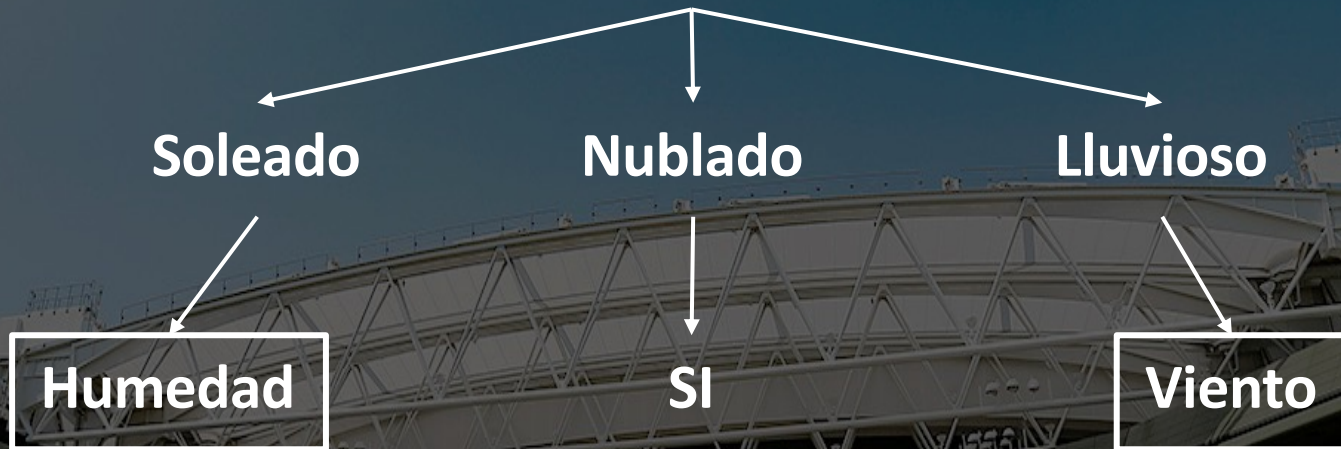
Suave

NO

SI

NO

SI





Estado	Temp	Humedad	Viento	Juego tenis
Soleado	Alta	Alta	Leve	No
Soleado	Alta	Alta	Fuerte	No
Nublado	Alta	Alta	Leve	Si
Lluvia	Suave	Alta	Leve	Si
Lluvia	Baja	Normal	Leve	Si
Lluvia	Baja	Normal	Fuerte	No
Nublado	Baja	Normal	Fuerte	Si
Soleado	Suave	Alta	Leve	No
Soleado	Baja	Normal	Leve	Si
Lluvia	Suave	Normal	Leve	Si
Soleado	Suave	Normal	Fuerte	Si
Nublado	Suave	Alta	Fuerte	Si
Nublado	Alta	Normal	Leve	Si
Lluvia	Suave	Alta	Fuerte	No



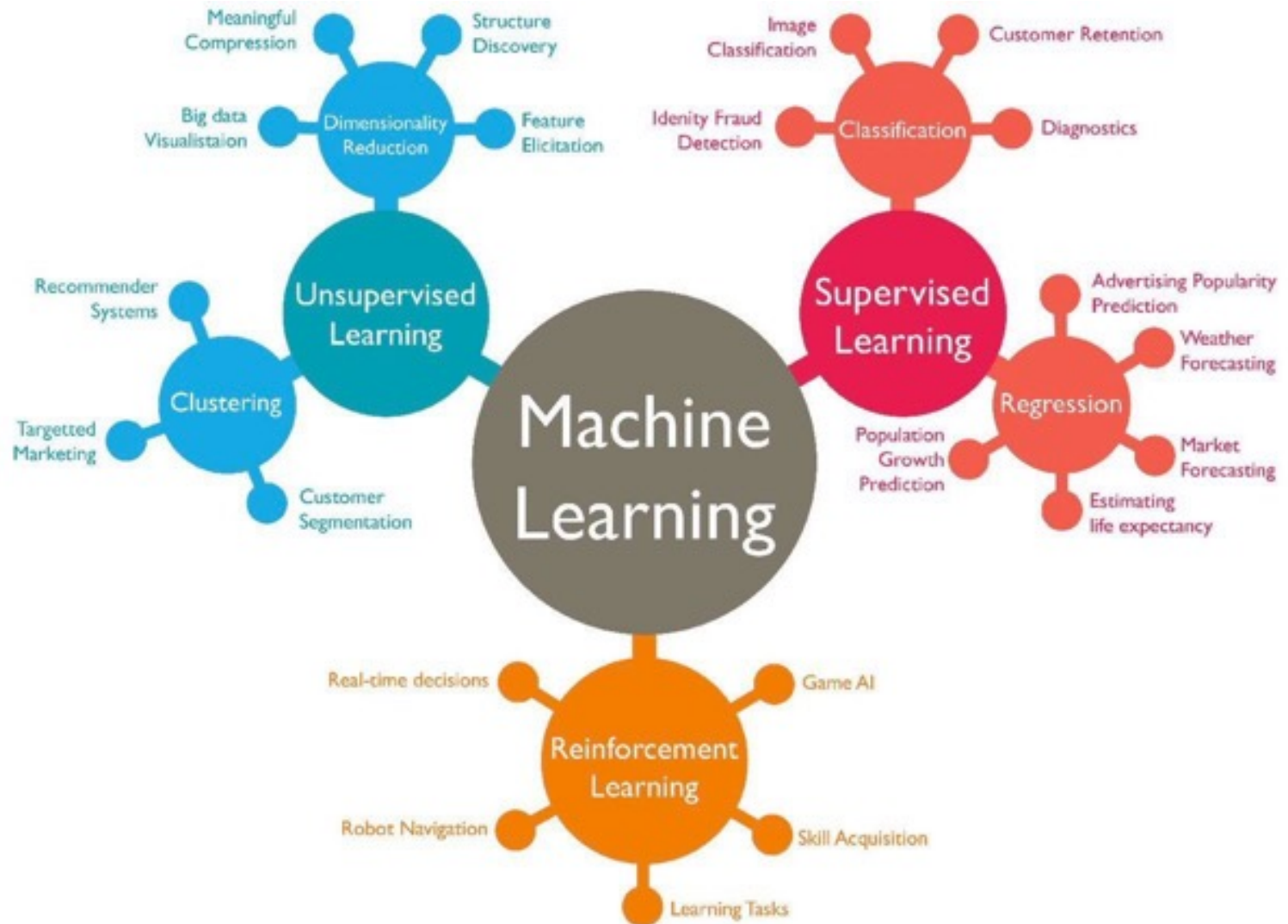
**Datos de
Entrada &
Salida**

**Algoritmo de
Aprendizaje
Automático**



Algoritmo





The background is a deep blue gradient. It features a complex pattern of white and light blue lines that form a wireframe mesh, resembling a 3D grid or a series of overlapping planes. Scattered throughout the background are binary digits (0s and 1s) in a lighter blue color, some appearing as if they are floating or moving. There are also some small, glowing white dots and faint circuit-like lines, giving it a high-tech, digital feel.

Ejemplos de Aprendizaje Automático

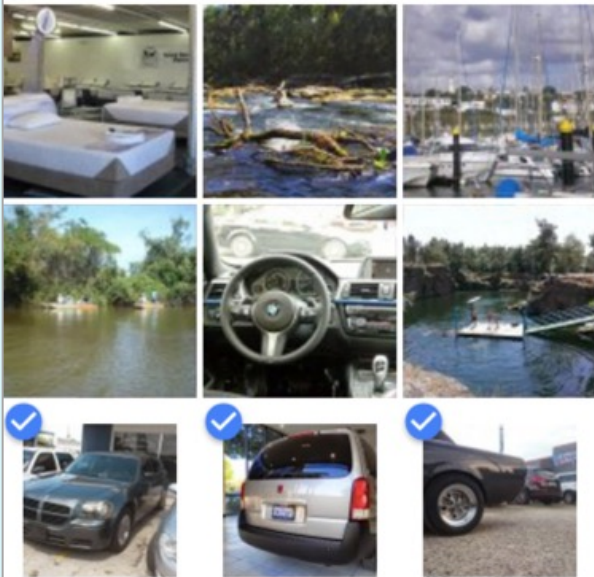
Clasificación

The background is a deep blue gradient. It features several overlapping wireframe spheres of varying sizes, creating a sense of depth and motion. Scattered across the scene are numerous binary digits (0s and 1s) in a lighter blue color. Some of these digits are part of larger, faint patterns that resemble circuit boards or data paths. There are also a few small, bright white dots that look like distant stars or data points.



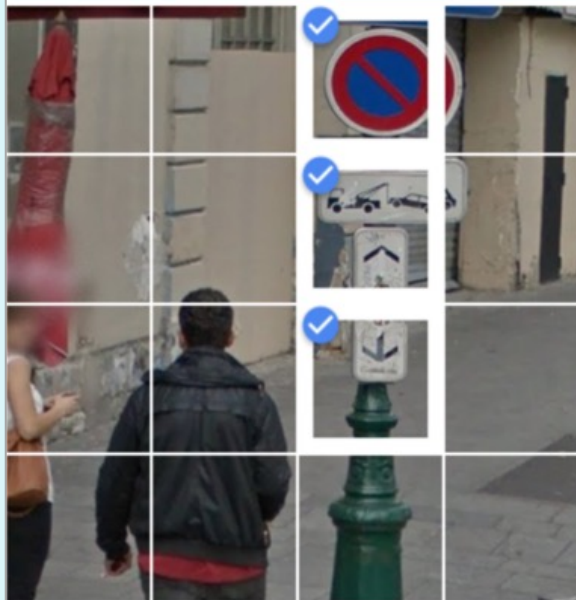


Select all images with cars



Verify

Select all squares with street signs.



Verify

Select all squares with street signs.



VERIFY

"Es terrible la calidad de esta cámara, me arrepiento de haberla comprado"

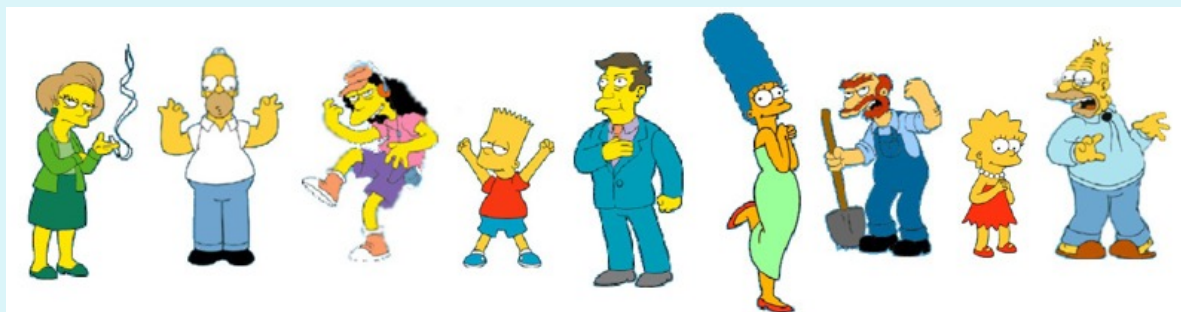
"No quiero volver a este restaurant, su atención fue terrible"

"Regla: si contiene la palabra **TERRIBLE** el texto es *negativo*"

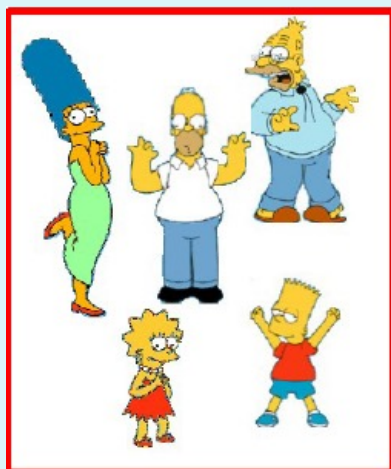
"Acabo de llegar a casa, **terrible** fiesta!"

Clusterización

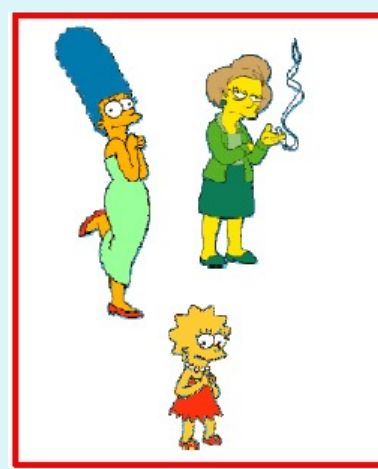
The background is a deep blue gradient. It features several glowing, semi-transparent wireframe spheres of varying sizes, some of which are interconnected by thin white lines, suggesting a network or data flow. Overlaid on this are patterns of binary code (0s and 1s) in a lighter blue shade, arranged in a way that suggests depth and digital information. The overall aesthetic is high-tech and futuristic.



Opción 1



Opción 2





UTE

Sobre UTEC - Suroeste :: UTEC

Creador: Juan Manuel Ramos

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🔍 Niños 🔔 🌐

Películas emocionantes basadas en programas



Tendencias



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