

Quantum
Abya Yala

Quantum Machine Learning

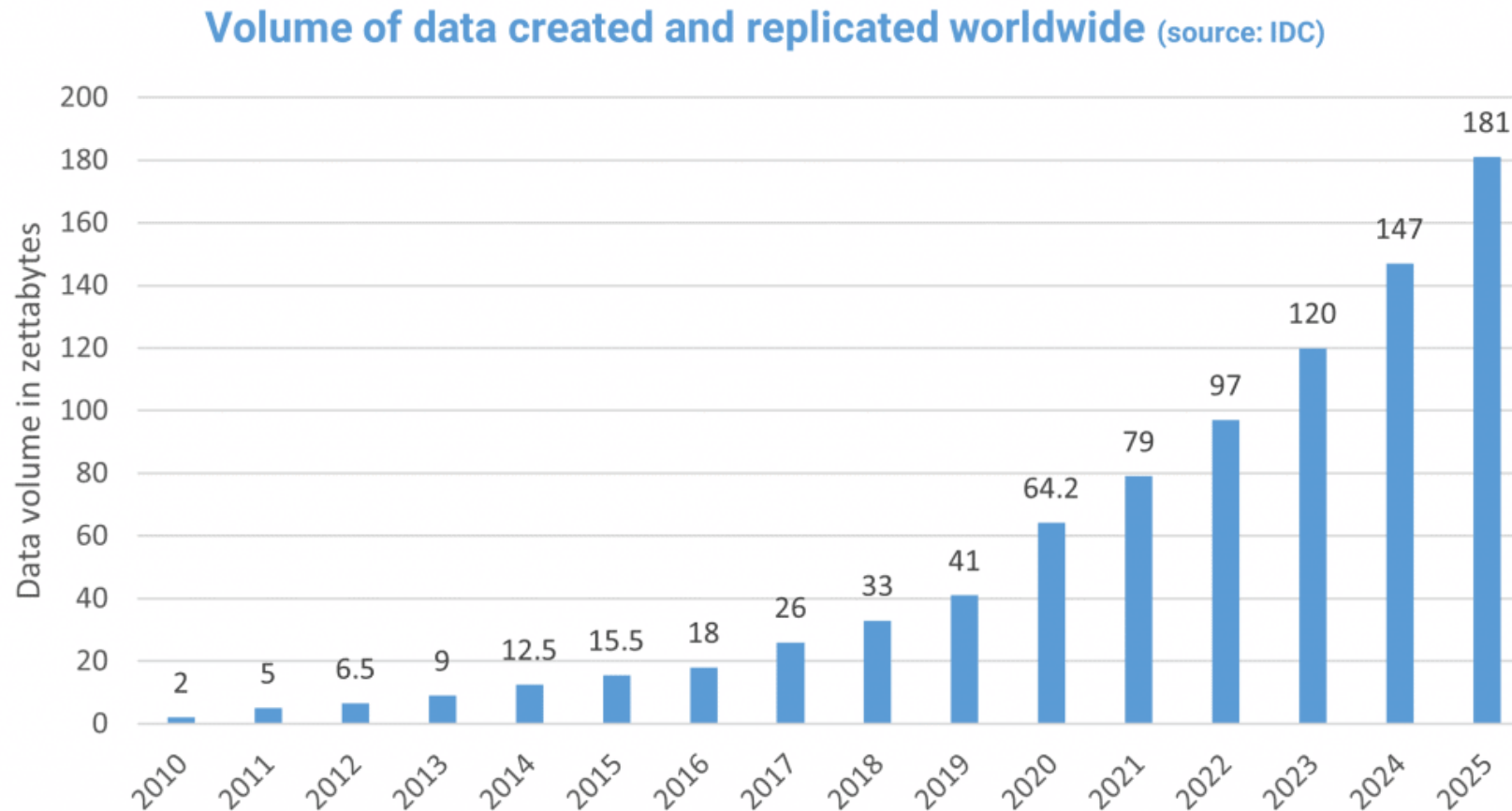
Construyendo un clasificador
cuántico variacional



Claudia Zendejas-Morales

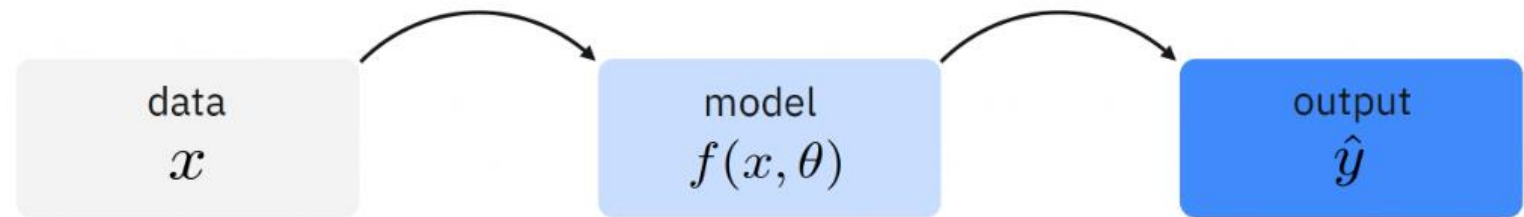


Crecimiento Exponencial de los Datos

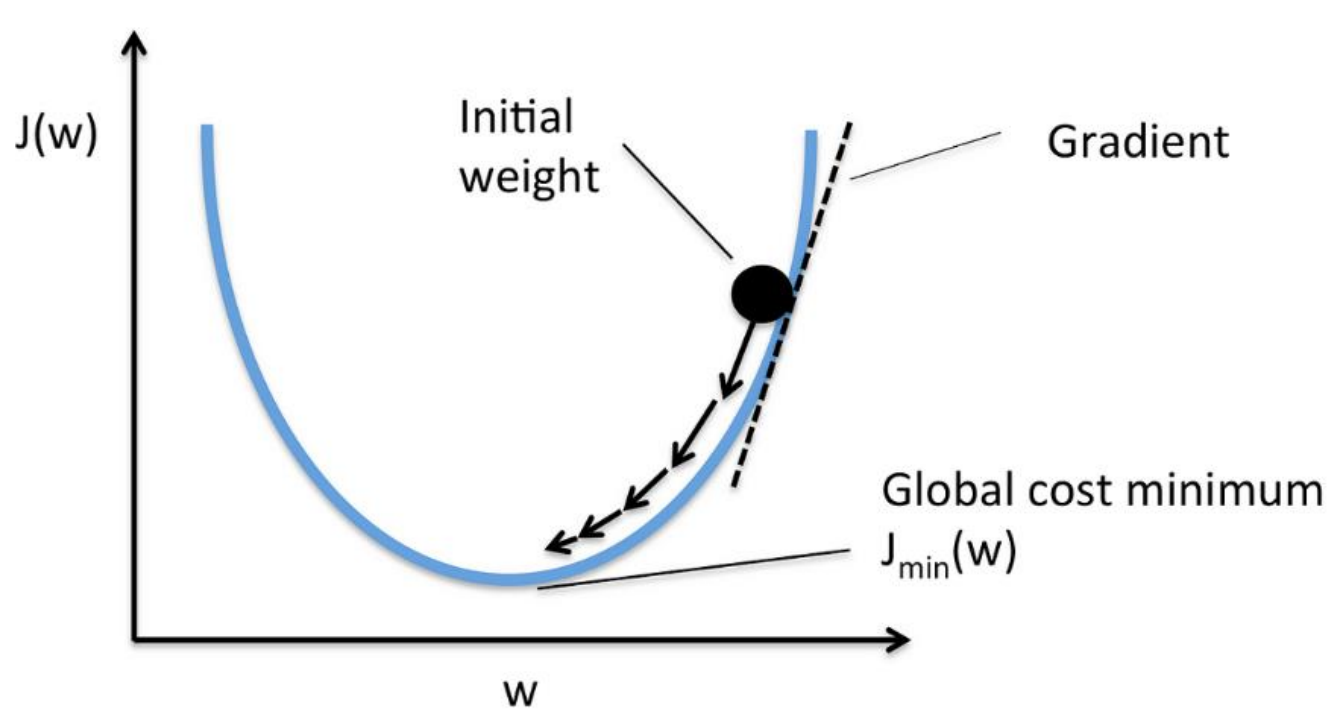


<https://www.red-gate.com/blog/database-development/whats-the-real-story-behind-the-explosive-growth-of-data>

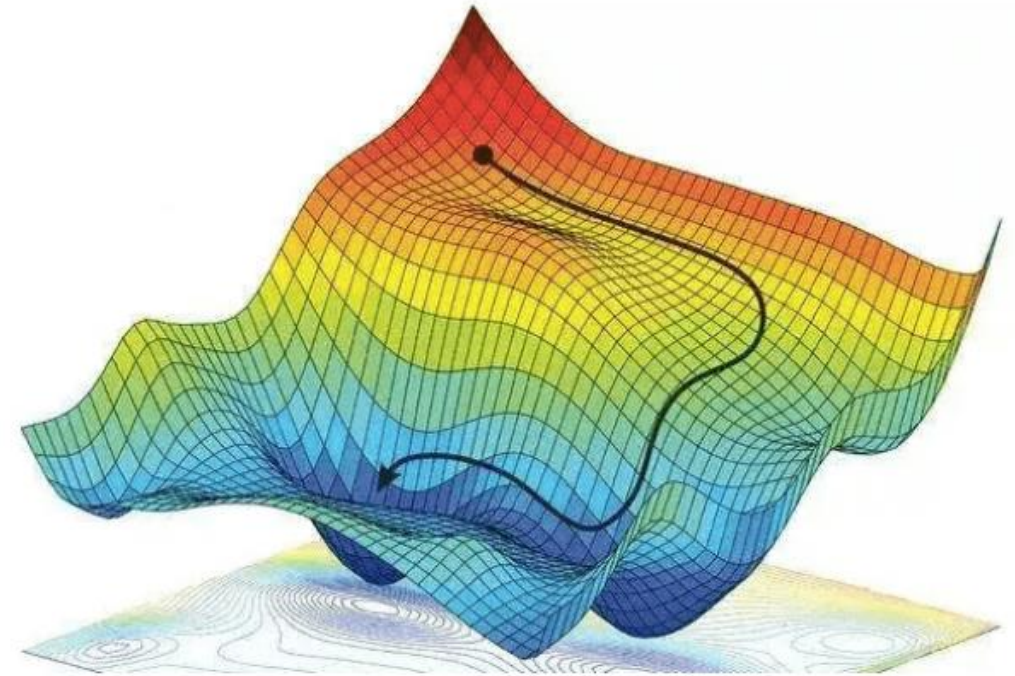
MACHINE LEARNING



¿Cómo “aprende” un modelo de ML?

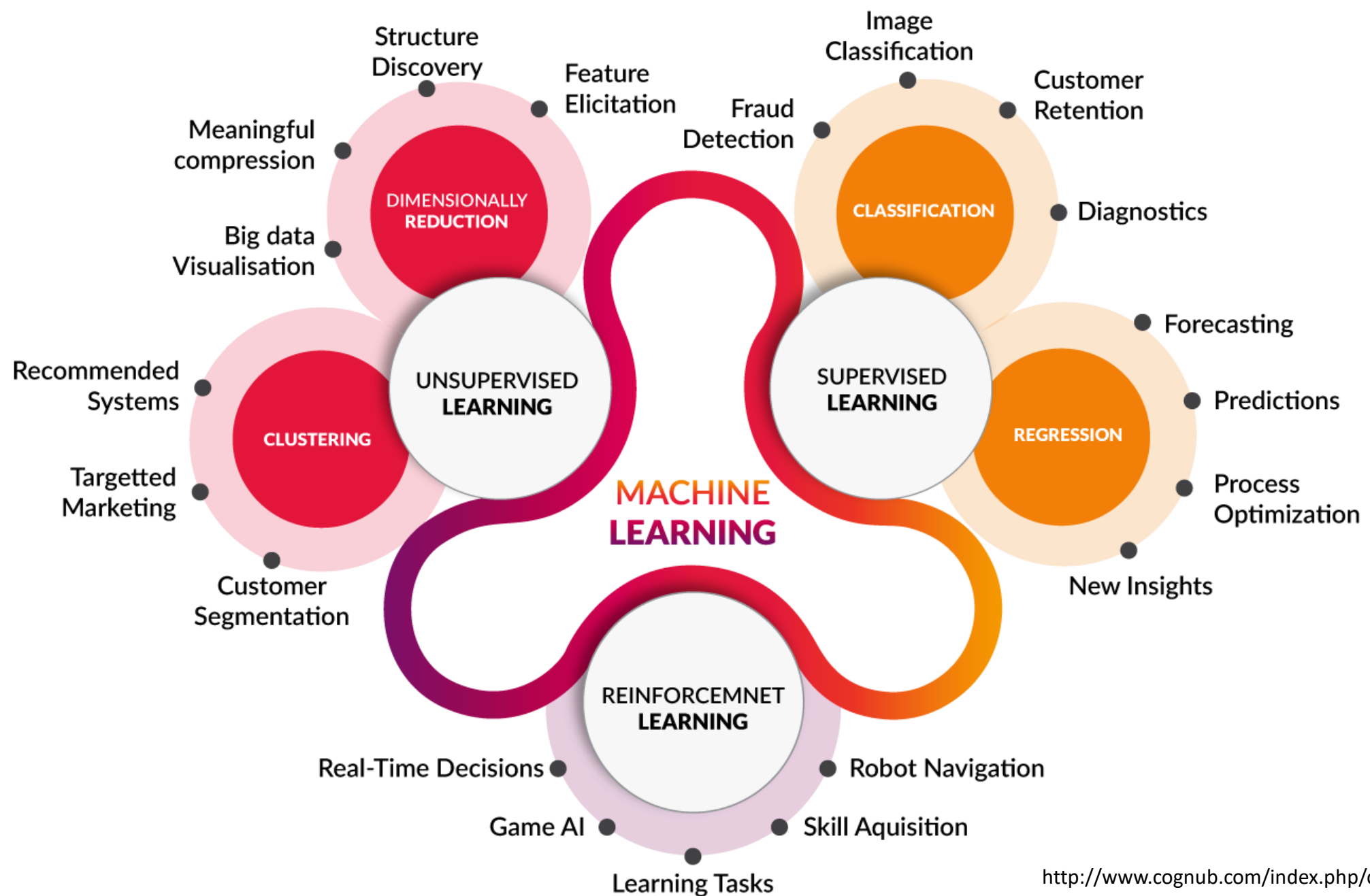


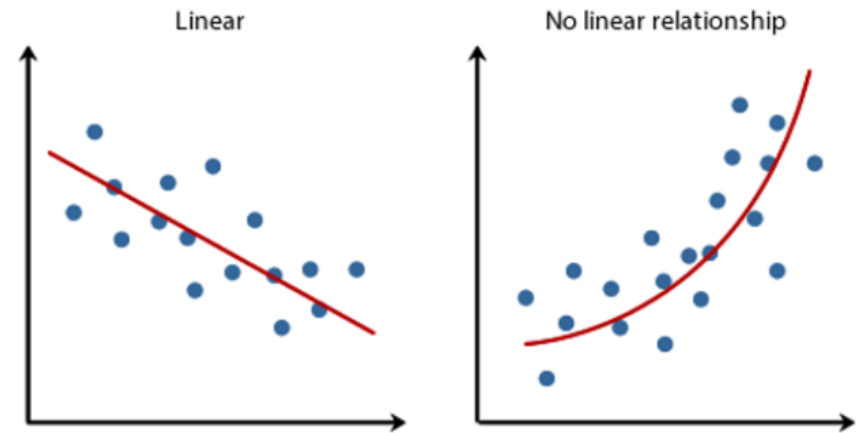
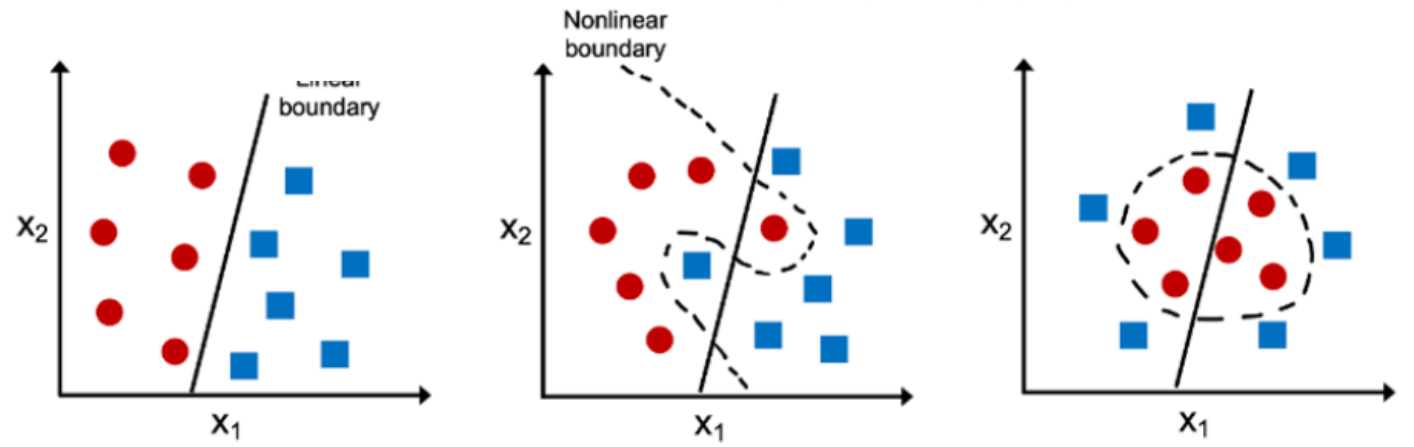
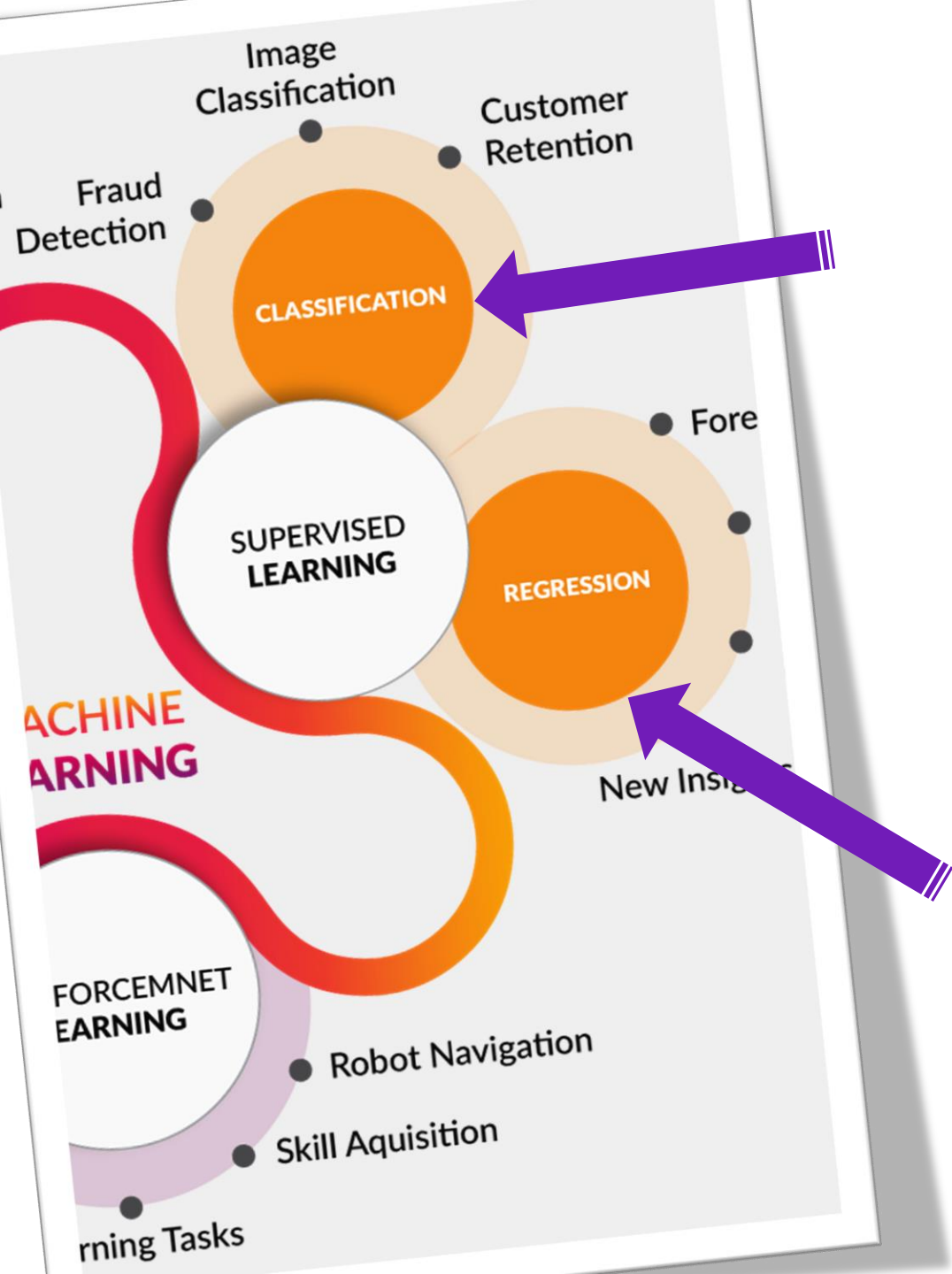
$$J(\vec{w}, b) = \frac{1}{m} \sum_{i=1}^m L(\hat{y}^{(i)}, y^{(i)})$$



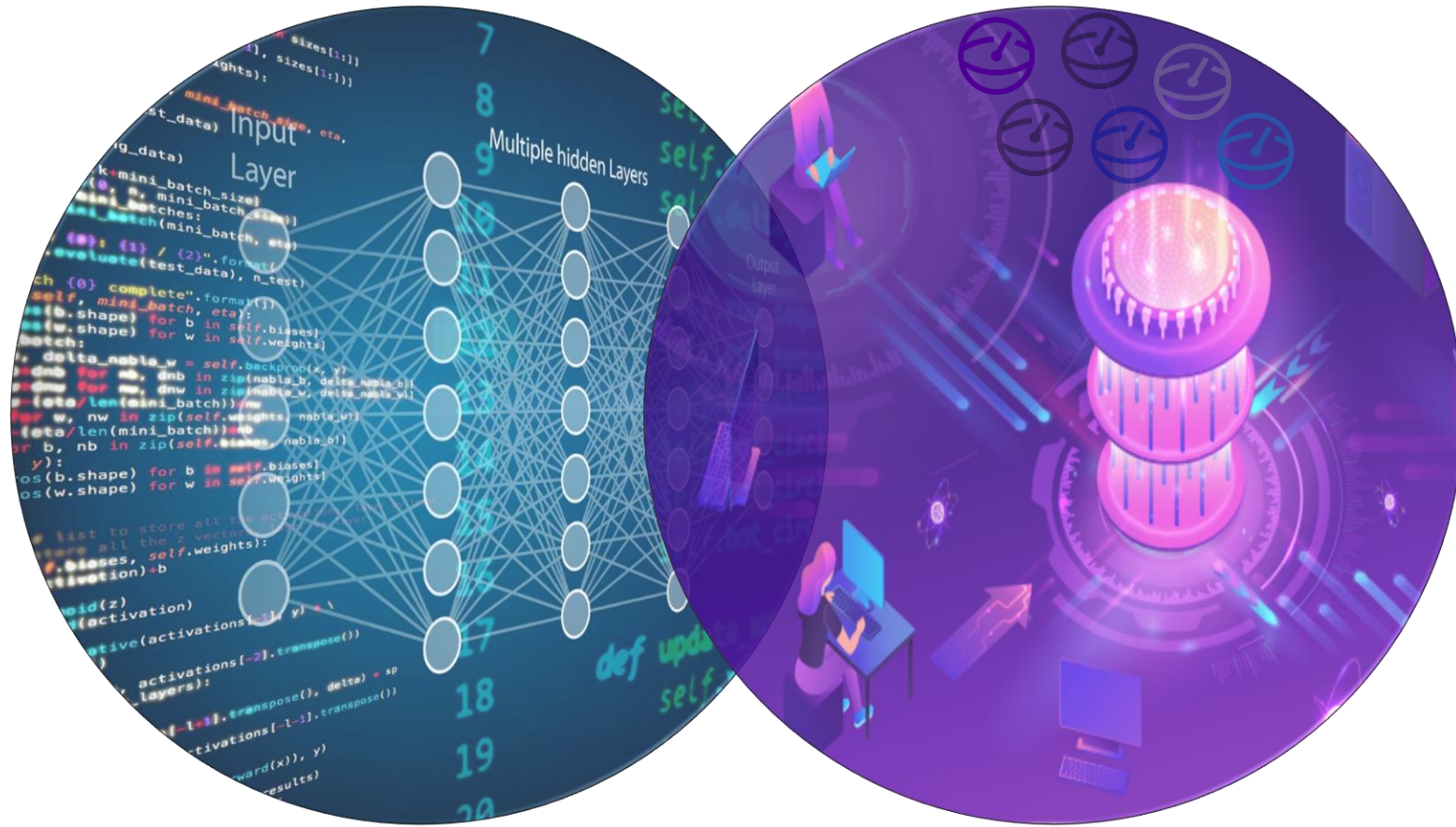
$$w = w - \alpha \frac{\partial J}{\partial w}$$

$$b = b - \alpha \frac{\partial J}{\partial b}$$





QUANTUM MACHINE LEARNING



Categorías de ML/QML

		Algoritmo	
		Clásico	Cuántico
Datos	Clásicos	CC	CQ
	Cuánticos	QC	QQ

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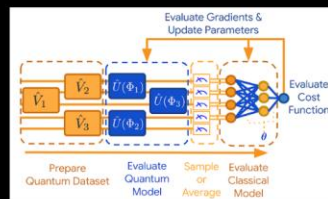
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March 9, 2020 · Posted by Alan Ho, Product Lead and Masoud Mohseni, Technical Lead, Google Research



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rahko

HANDS-ON CON PENNYLANE

```
pip install pennylane
```

```
import pennylane as qml
```

<https://github.com/clusia/qml-quantum-abya-yala-2024>

<https://shorturl.at/mztIC>



colab



GRACIAS

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