

devfest

Aprendamos machine Learning con herramientas de Google

 Google Developer Groups
Cali - Colombia



@marisbotero

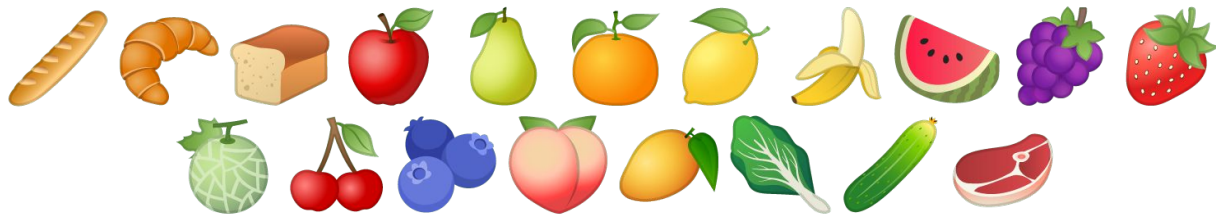
Indice

1. Qué es machine Learning
2. Flujo de trabajo
3. Herramientas
4. bigQuery
5. VertexIA



Machine Learning
Artificial intelligence

Datos



Algoritmos



Modelos



Predicciones



Input: 0, 8, 15, 22

Output: 32, 46.4, 59, 71.6

Input: 0, 8, 15, 22, 38

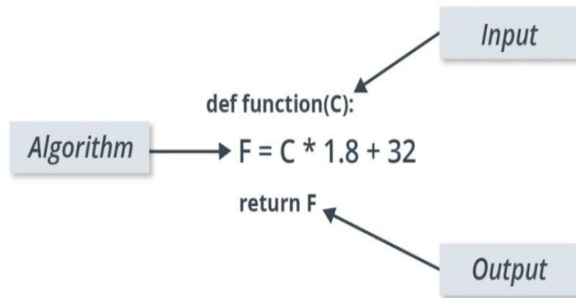
Output: 32, 46.4, 59, 71.6, ?

$$F = C * 1.8 + 32$$

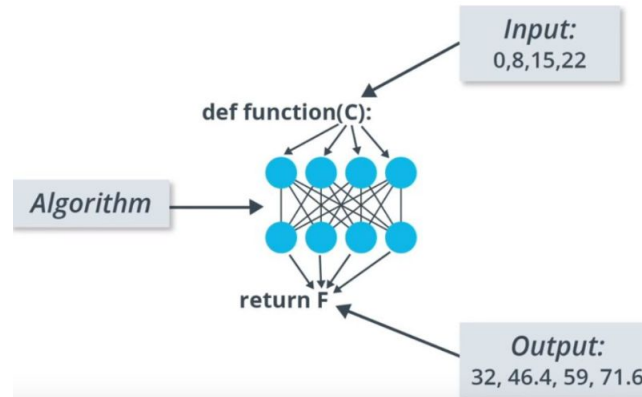
F = Fahrenheit

C = Celsius

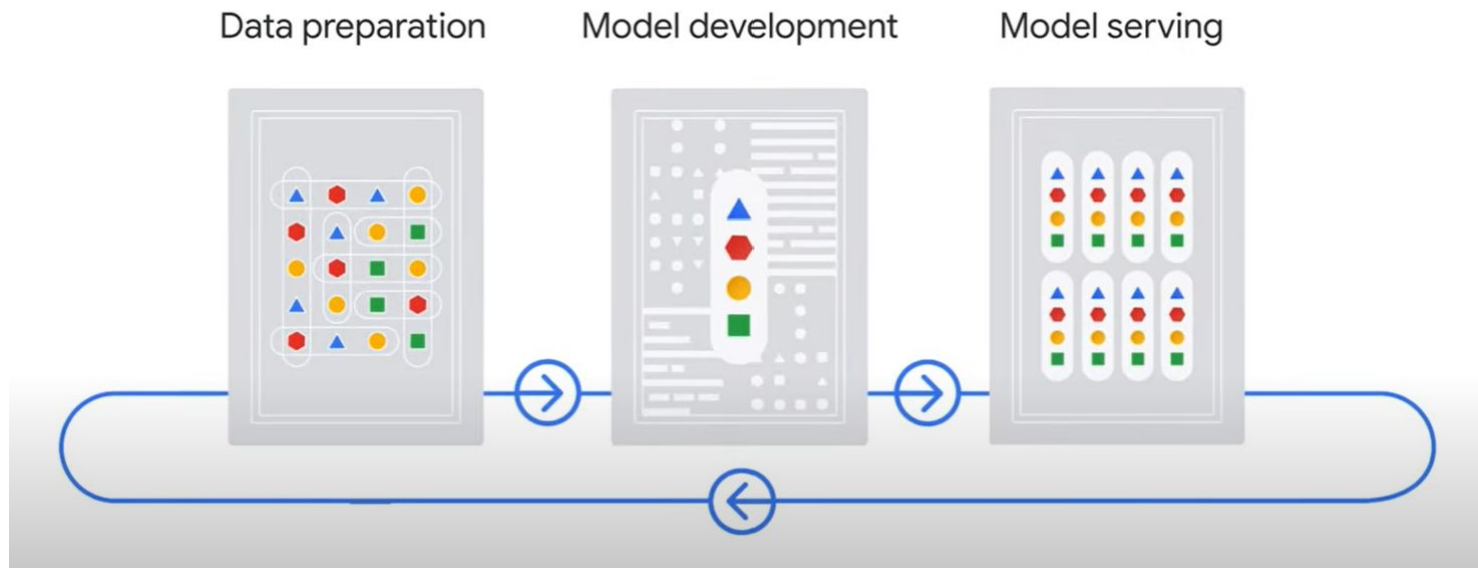
♥ Software tradicional



♥ Machine Learning



Flujo de trabajo



Herramientas

01

Pre-trained APIs

Use ML models that Google has already built and trained.

02

BigQuery ML

Use SQL queries to create and execute machine learning models in BigQuery.

03

AutoML

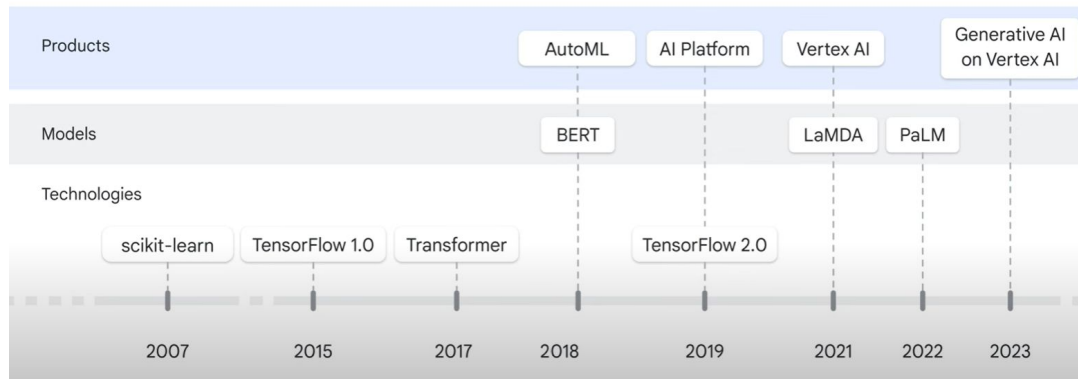
Apply a no-code solution to build ML models on Vertex AI.

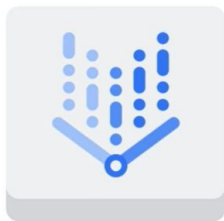
04

Custom training

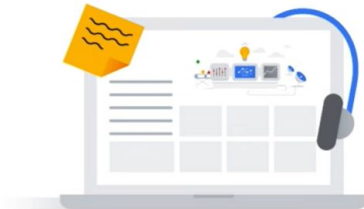
Code your own ML environment to have the control over the ML pipeline.

Google's contributions to AI advancements





Vertex AI



Prepare
data

Create
models

Deploy
models

Manage
models

Vertex AI

An end-to-end ML development platform to build, deploy, and manage ML models

Model Garden

Generative AI Studio

Foundation
models

Task-specific
solutions

Fine-tunable
models

Prompt design

Tuning

Data scientists

ML developers

App developers

Data scientists

-GCP

-Google colab

-<https://cloud.google.com/automl?hl=es>

-<https://cloud.google.com/vertex-ai/docs/beginner/beginners-guide?hl=es>

- Machine Learning Crash Course - ML from scratch theory + practice
<https://developers.google.com/machine-learning/crash-course/>
- Seedbank - learn ML with simple and advanced example Colabs
<https://research.google.com/seedbank>
- Distill.pub - awesome visual explanations
<https://distill.pub/>
- Deep Learning With Python
<https://github.com/fchollet/deep-learning-with-python-notebooks/>
- MIT Deep Learning Course
<https://deeplearning.mit.edu/>

```
Text(  
  'Simple Statement or URL',  
  style: TextStyle(  
    color: Colors.yellow[200],  
  ),  
),  
),  
s.star,  
r: Colors.yellow[500],  
Text('23'),
```

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¡Muchas gracias!

