

Saturdays.AI
LATAM



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La vacuna informativa

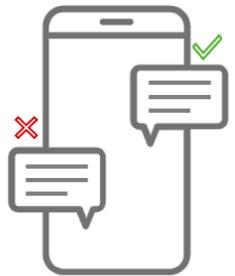


CRIS

MAR

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Irene Velasco

Project Líder



Esteban Molina

Developer



Alejandro Tapia

Web Developer



Antonio Calzadilla

Business Analyst



Christian Vadillo

ML Engineer



Edwin Jiménez

Data Eng. / Mentor



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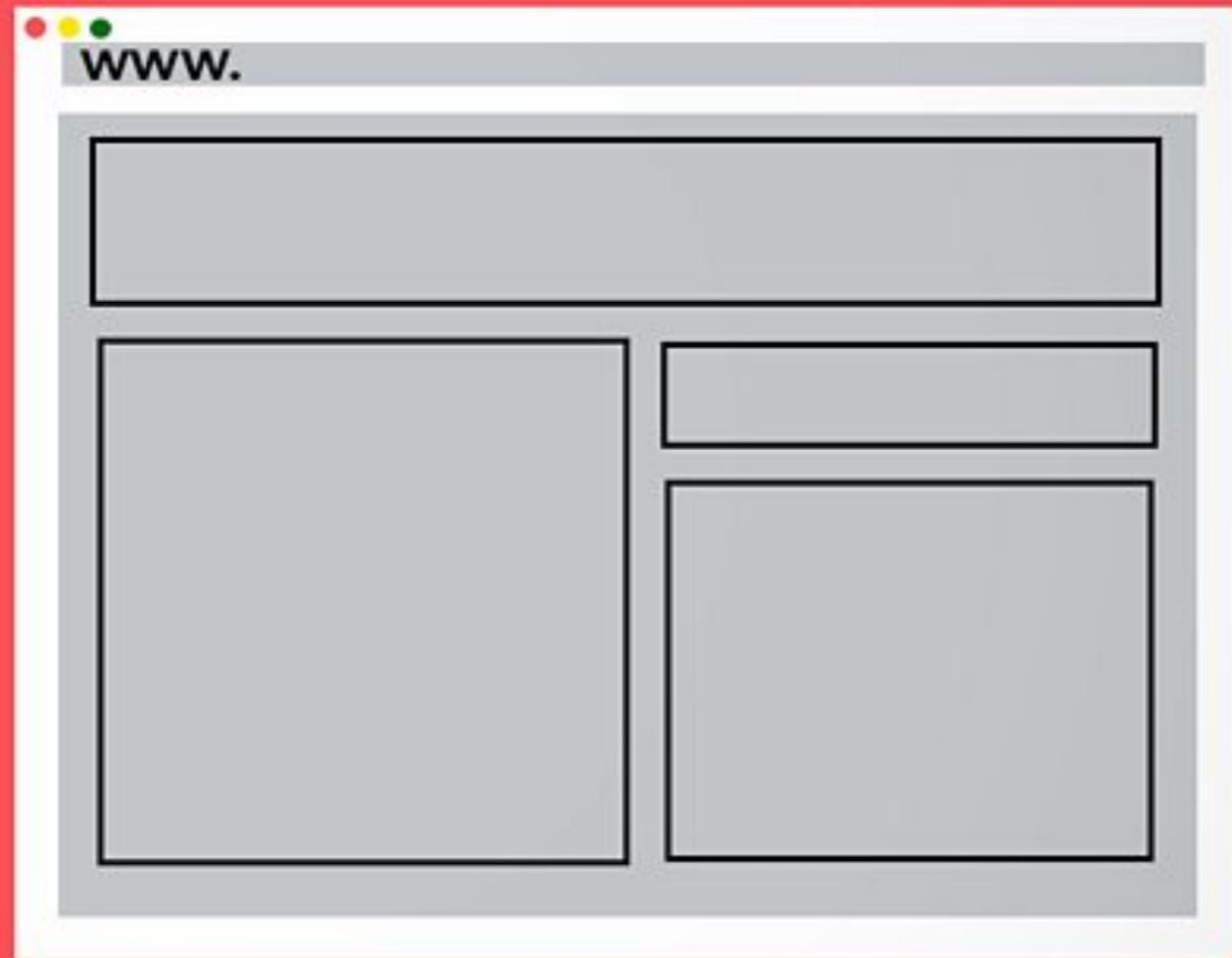
La vacuna informativa



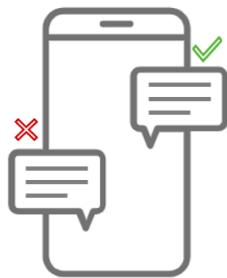
Hipótesis



Objetivo del Aprendizaje Automático



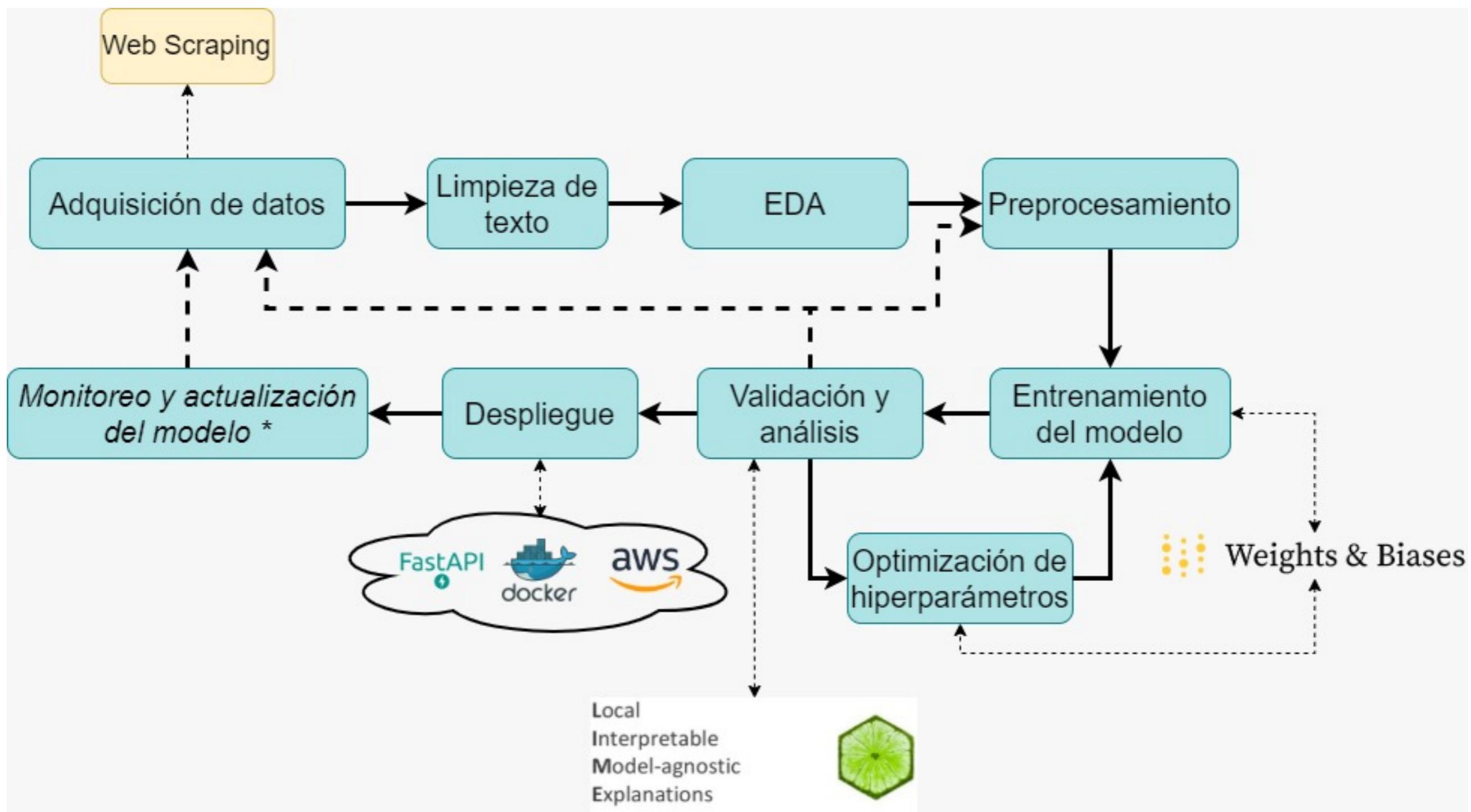
Real vs fake news



Pipeline seguido

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World Health Organization

Datos



Google Fact Check Tools



Claim by Franco Mabanta:
COVID-19 is the first pandemic in a century.

VERA Files rating: False
VERA FILES FACT CHECK: FB post falsely claims COVID-19 is first pandemic in a century; 'record-shattering' COVID-19 recoveries in one day needs context
2 days ago

Coronavirus disease 2019
Pandemic
VERA Files

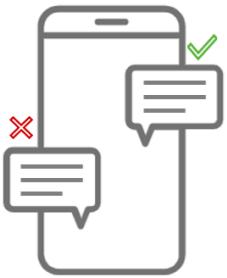
chequeado.com

LATAM CHEQUEA

CORONAVIRUS

Información chequeada sobre el Coronavirus

Desinformaciones que desmentimos y medidas oficiales de toda la región



Explorando los datos

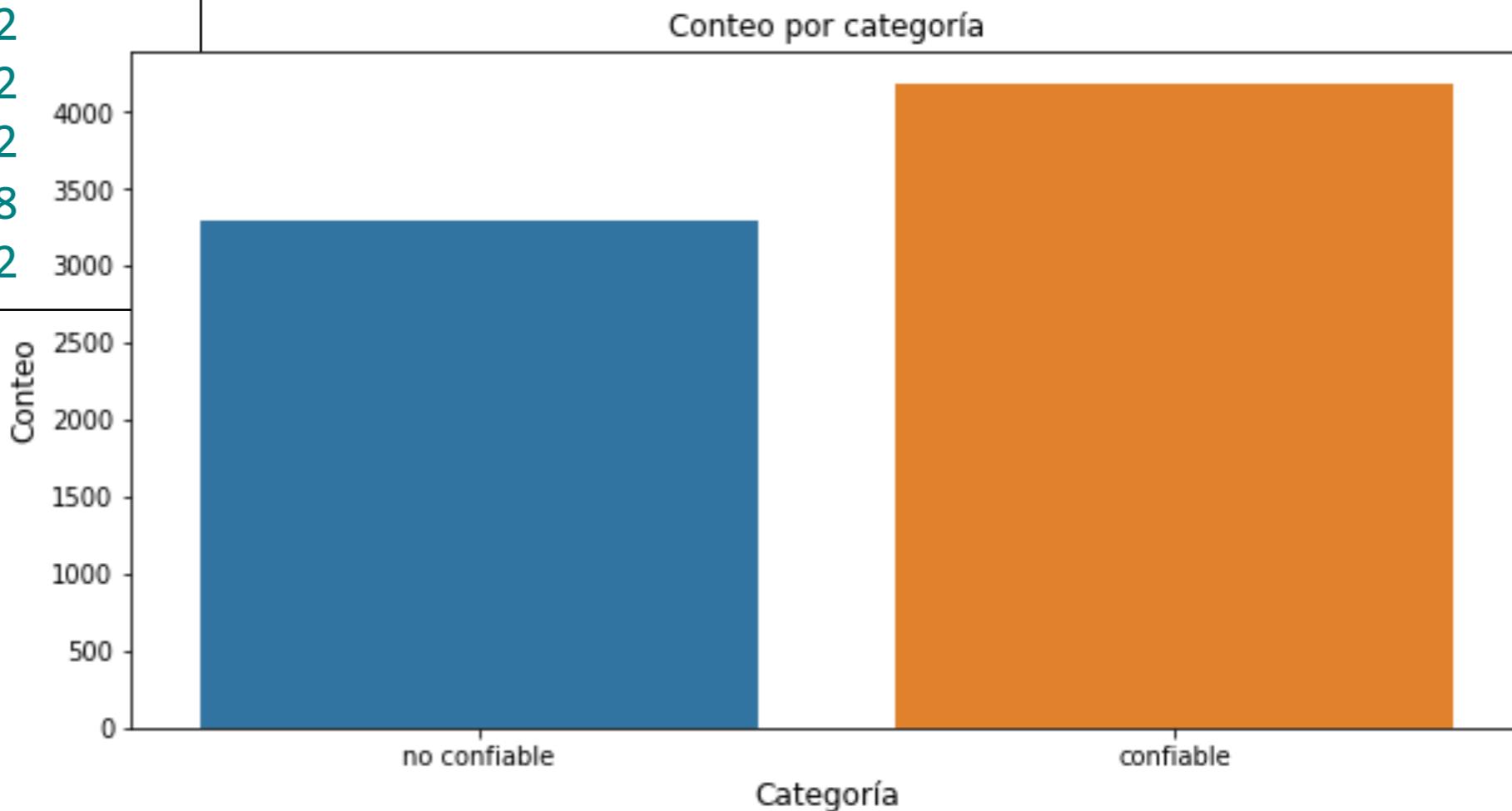
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Datos: 7482 entries

Columnas (total 6 columnas):

#	Columna	Contador
0	url	7482
1	titulo	7482
2	texto	7482
3	categoria	7482
4	fecha_aparicion	7478
5	organizacion	7482

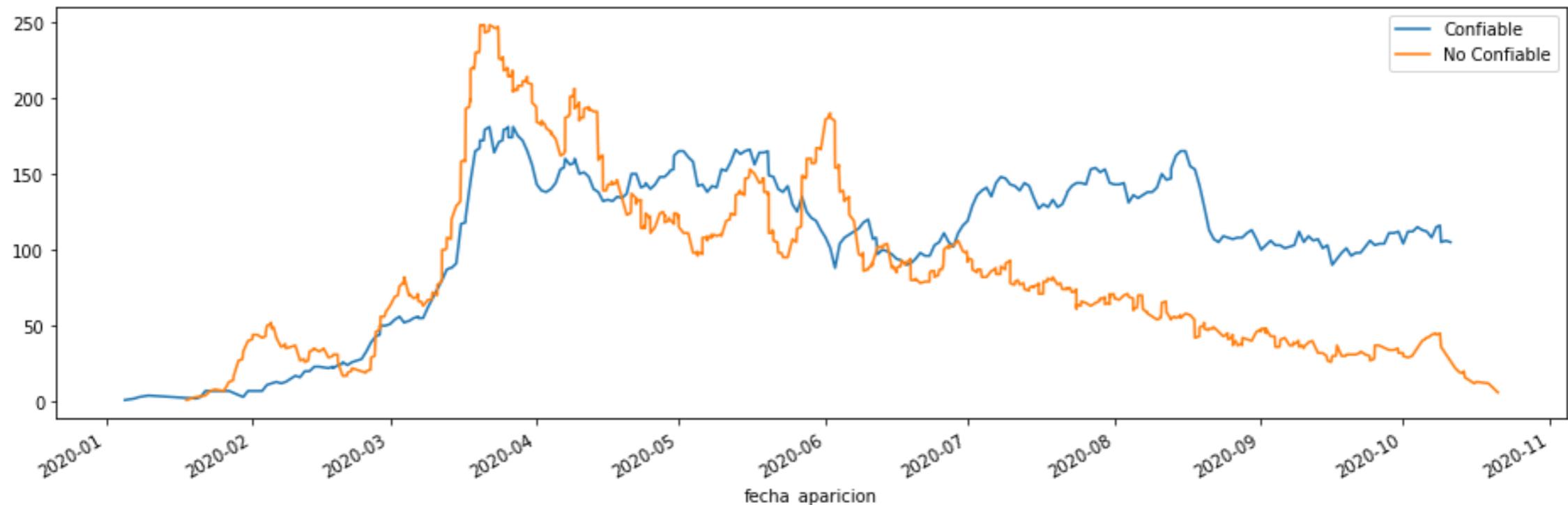




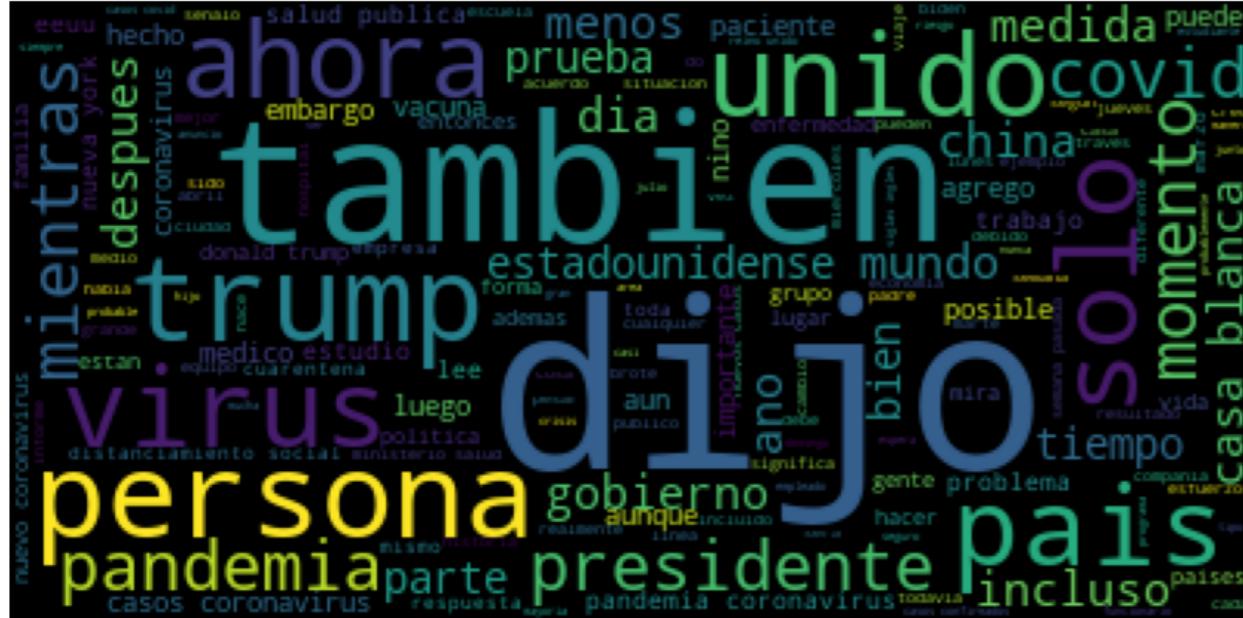
Explorando los datos

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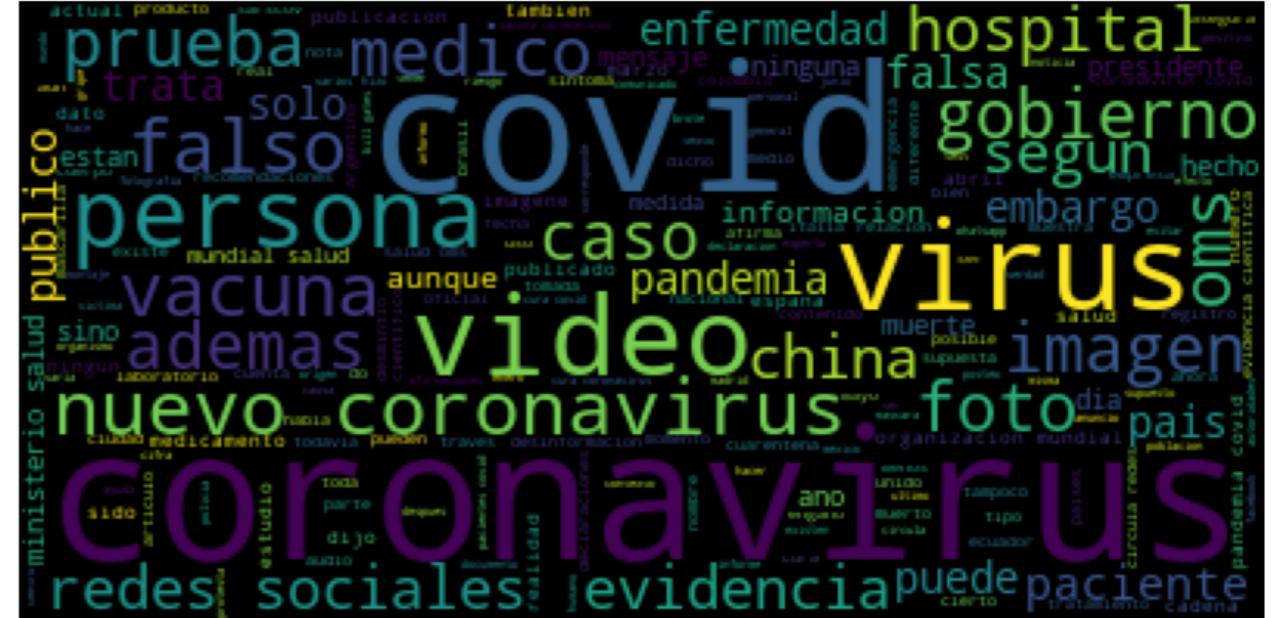
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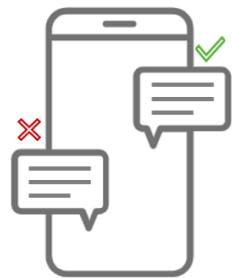


Most Common Words - Confiable



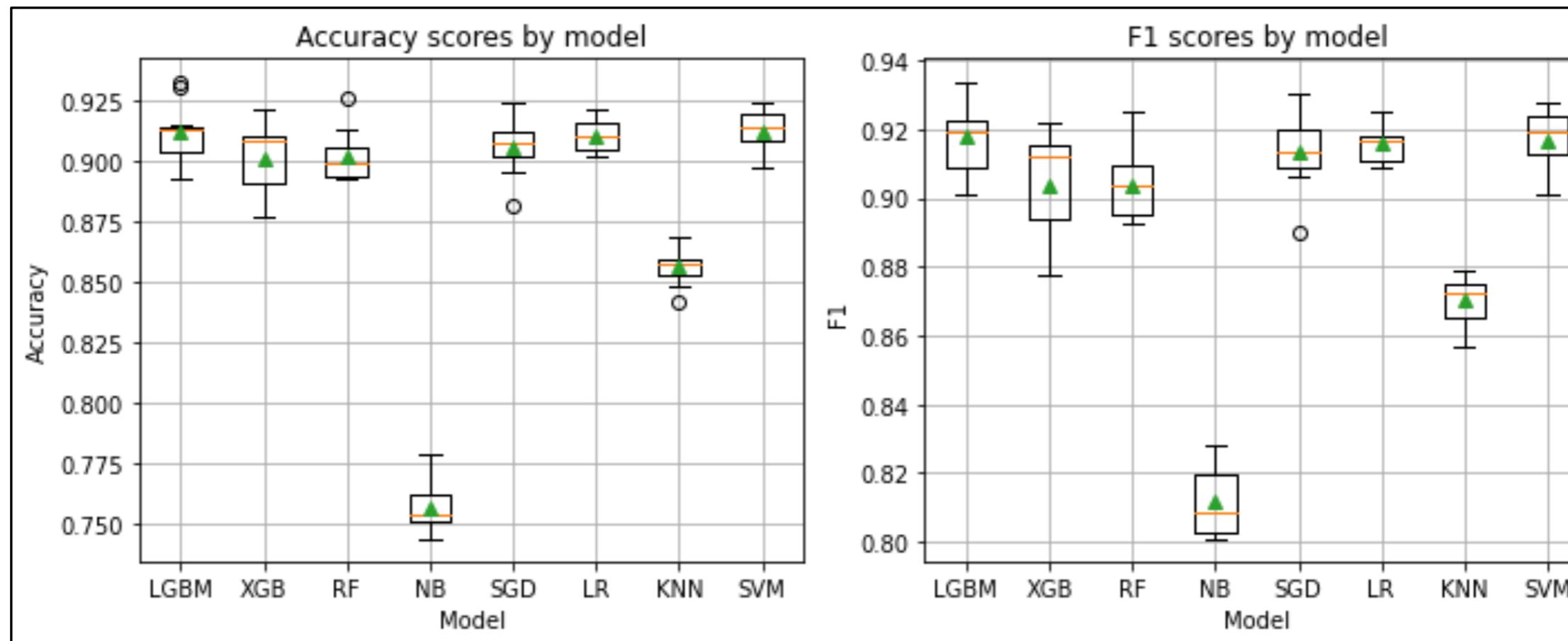
Most Common Words - No Confiable

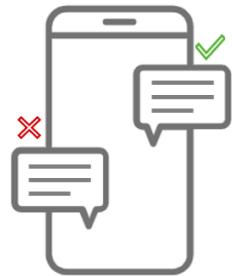




Entrenamiento del modelo

- ★ LightGBM (LGBM) - Accuracy - **0.9124**
- ★ Naïve Bayes (NB) - Accuracy - **0.7569**
- ★ Support Vector Machines (SVM) - Accuracy - **0.9129**





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Optimización de Hiperparámetros





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Validation: Train dataset
(10-Fold Cross-Validation)

Metric: Accuracy | Mean: **0.914** (+/- **0.03**)
Metric: F1-Score | Mean: **0.922** (+/- **0.03**)
Metric: ROC-AUC | Mean: **0.970** (+/- **0.02**)
Metric: PR-AUC | Mean: **0.981** (+/- **0.01**)

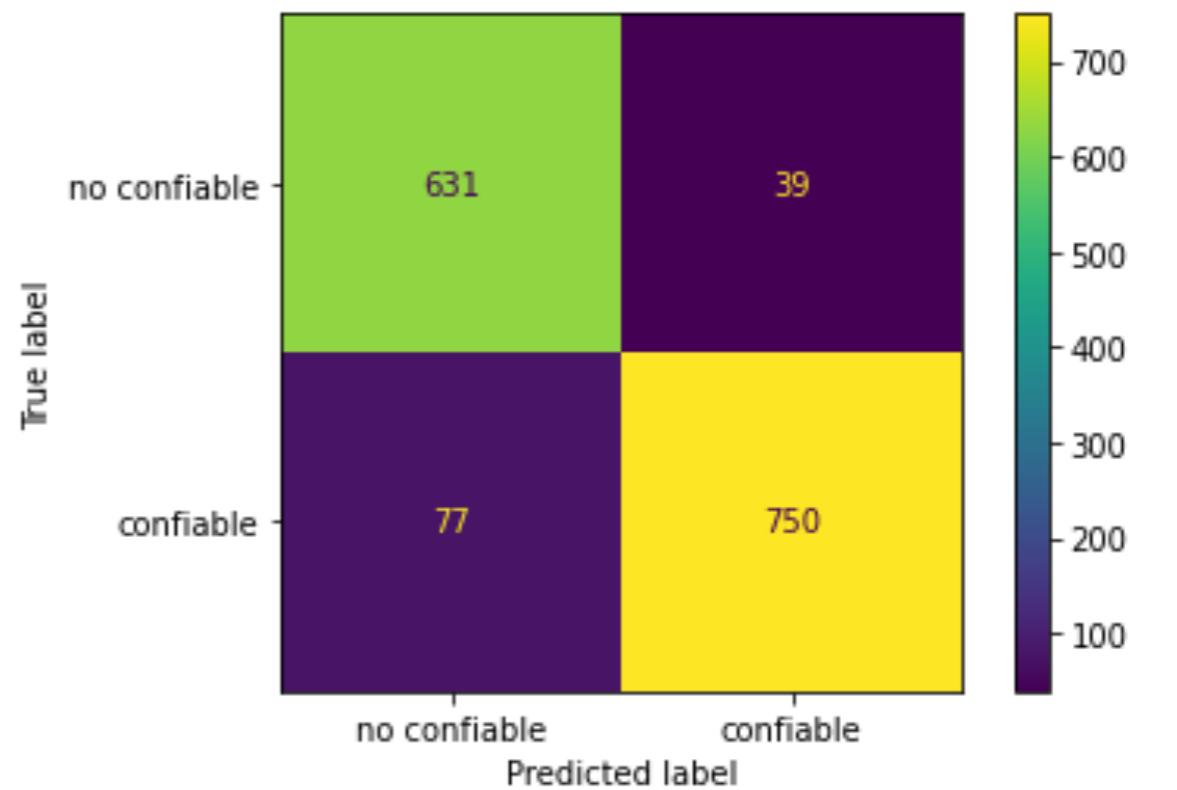
Validation: Test dataset

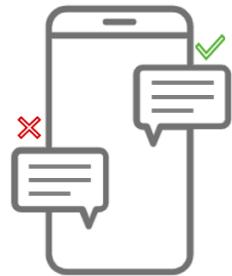
=====

Accuracy: **0.923**
F1-Score: **0.928**
ROC-AUC: **0.968**
PR-AUC: **0.979**

Validación del modelo

Validación Numérica



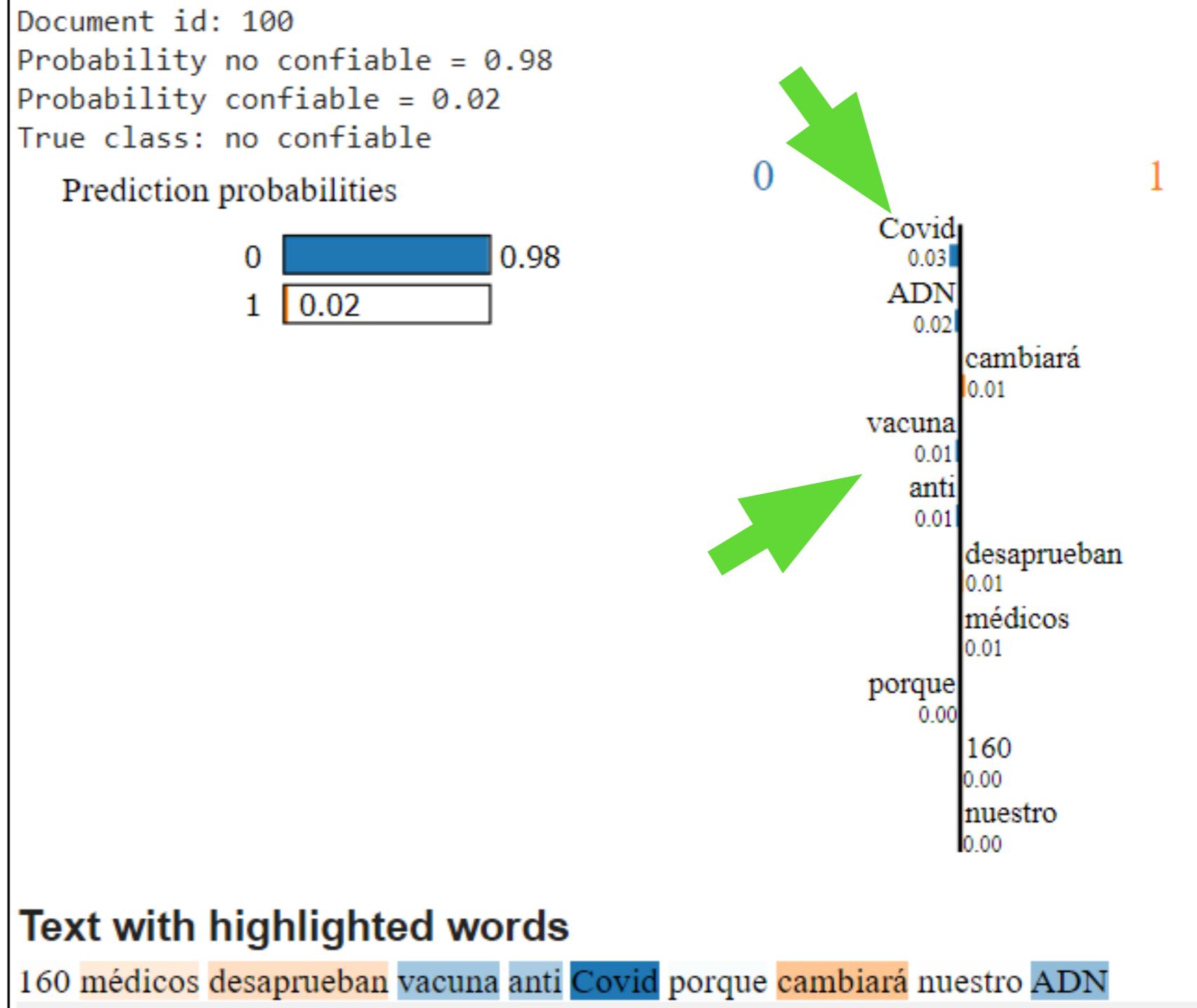


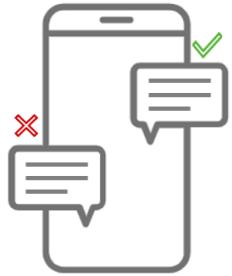
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Validación del modelo

Interpretabilidad



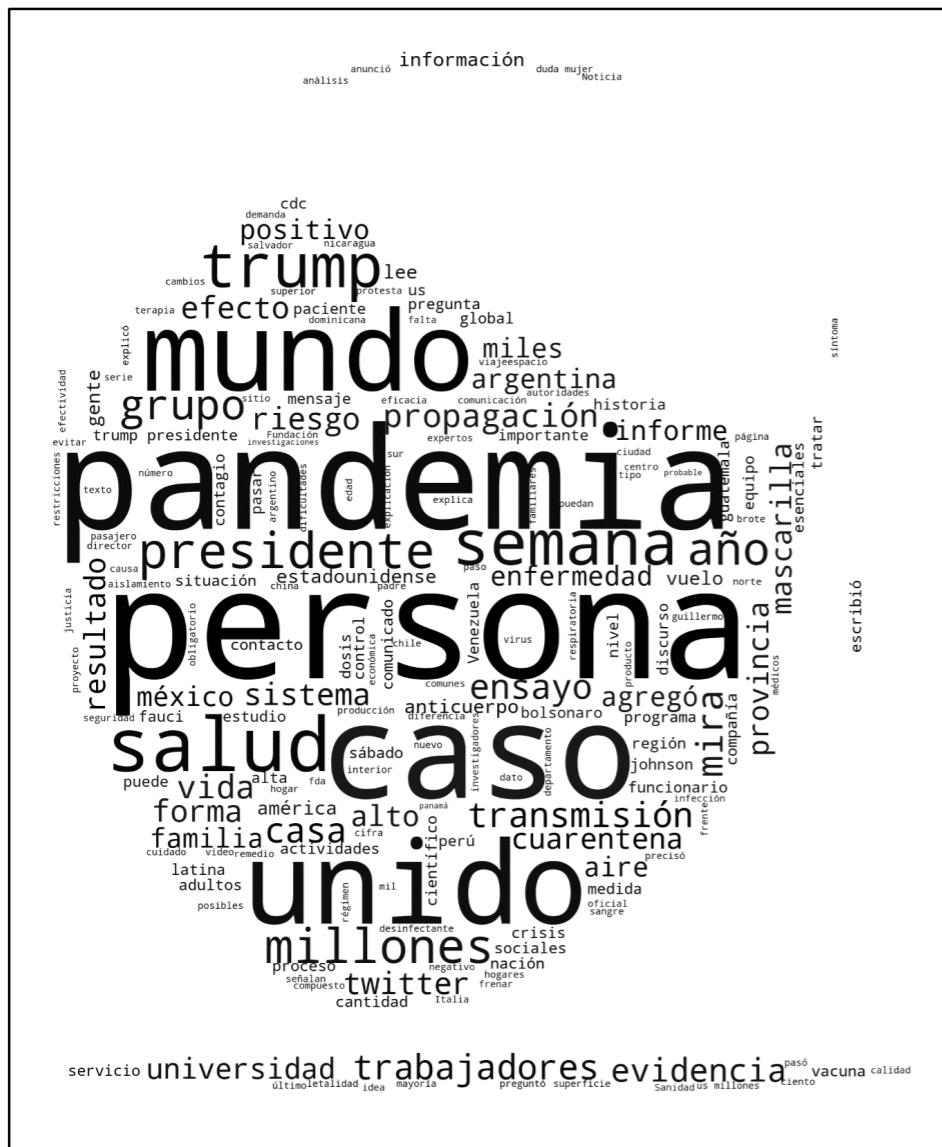


Interpretabilidad

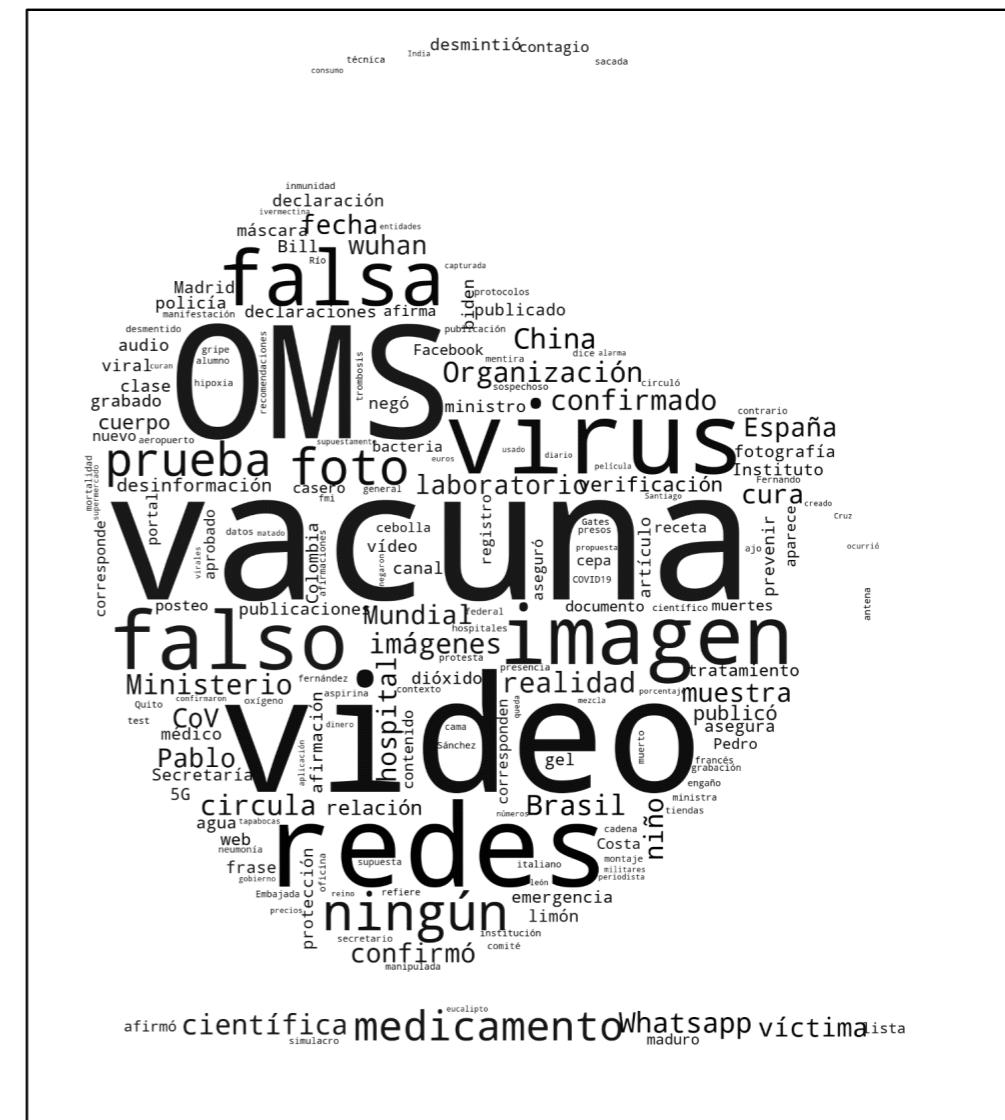
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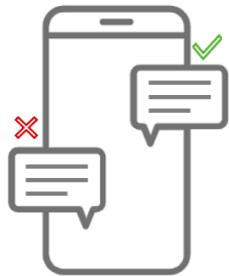
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Palabras que más influyen al momento de detectar si un texto **es confiable**



Palabras que más influyen al momento de detectar si un texto es **no confiable**

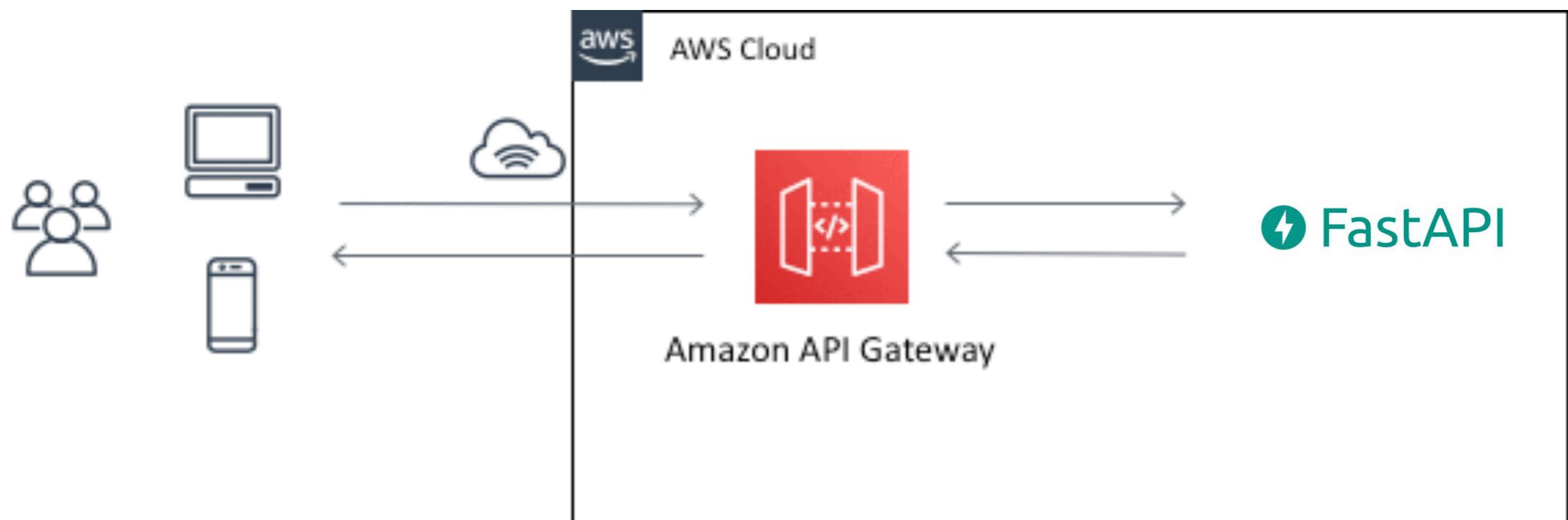


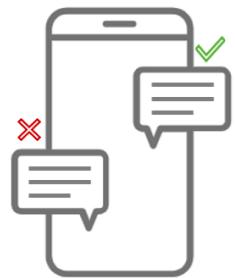


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Despliegue





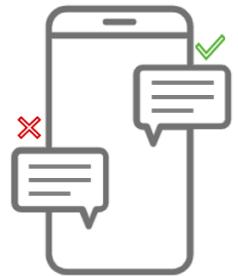
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Prototipo

Confiable

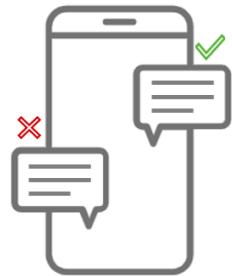


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La vacuna informativa

Prototipo

No Confiable



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Aprendizajes

Web scraping



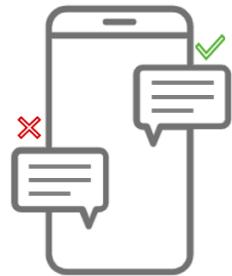
SAGEMAKER



**World Health
Organization**

Siguientes Pasos





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Recursos generados

 FastAPI

 Medium

 GitHub



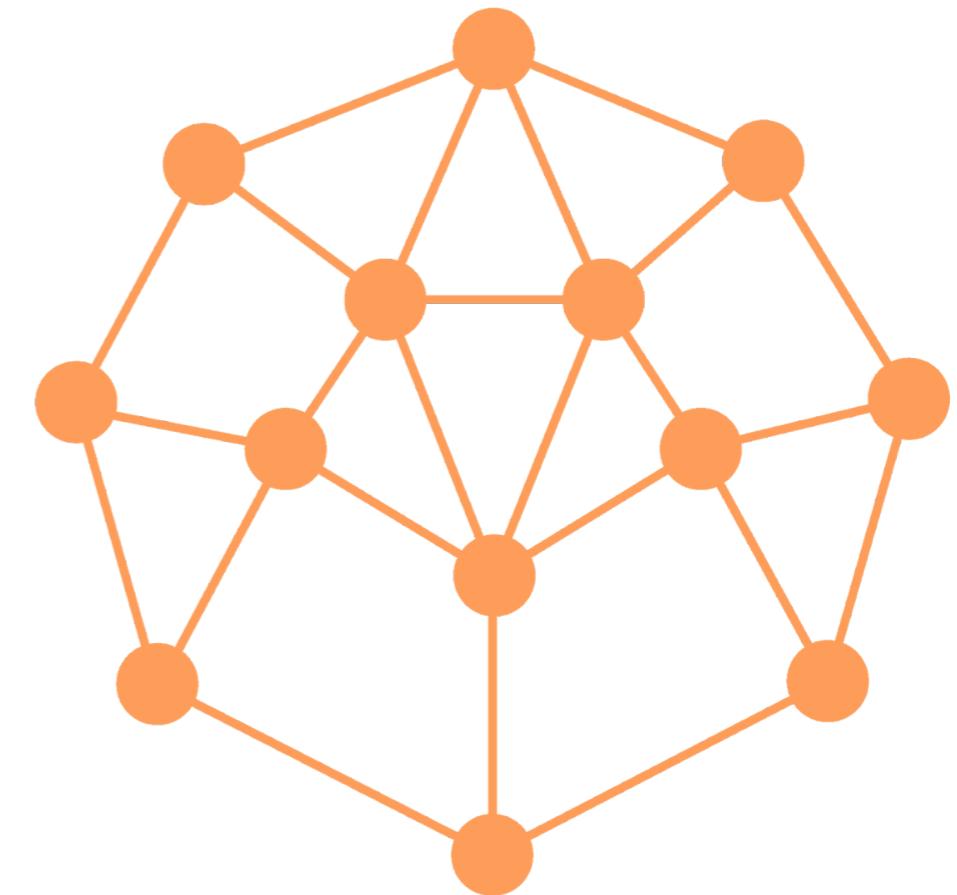
Call to action





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