

Developing Predictive Model for claim status on TikTok

Classifying Claims vs Opinions in TikTok Data

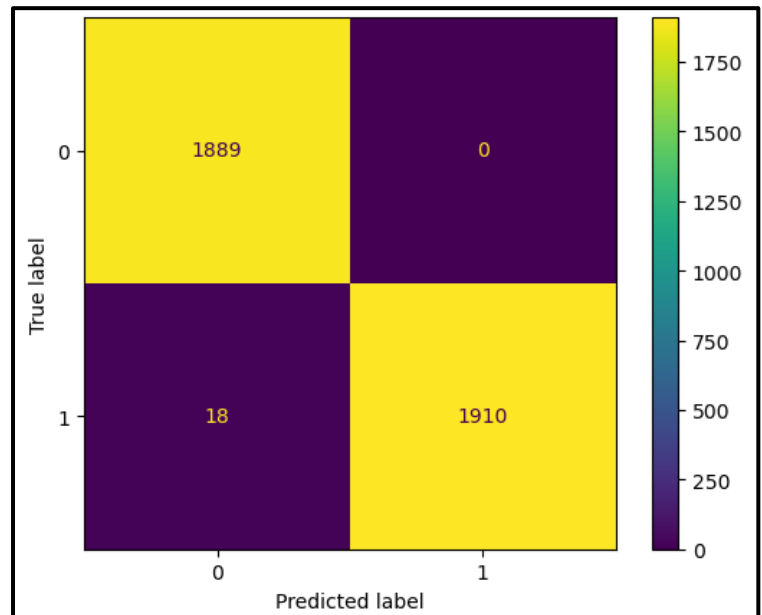
Project Overview

This project aim was to build a Classification Model that can distinguish between claims and opinions in TikTok data. The dataset contained features such as video transcription text, engagement metrics (view, likes, comments and shares) and user account information. Two Machine Learning Models, a Random Forest Classifier and a XGBoost Classifier, were trained and evaluated.

Details

Key Insights

- Both the Random Forest and the XGBoost Classification Models achieved near perfect results with a **99% - 100% Accuracy, Precision, Recall and F1 Scores**.
- Confusion Matrices** showed that there was extremely low misclassifications (<25 misclassifications out of 3,817 samples).
- Video engagement features (views, likes, shares, comments)** were the strongest Predictors for Classifying claims vs opinions.
- While both Random Forest and XGBoost delivered almost identical predictive performance, the Random Forest Classifier provides better **interpretability**. XGBoost, being a black box Model, is harder to explain to non-technical stakeholders, making the Random Forest Model the more practical choice for communication and transparency.



Random Forest Classifier – Confusion Matrix – Test Set

Next Steps

- Deploy Random Forest** as the **Champion Model** due to its interpretability and strong performance.
- Perform further testing on **unseen TikTok data** in order to confirm that the Model isn't overfitting the data.
- Explore more **feature engineering** (account credibility metrics, time of posting, topic modelling, Sentiment Analysis of the text) in order to improve robustness.
- Conduct **regular monitoring** of Model predictions to ensure accuracy over time, as TikTok trends and behaviours may evolve.
- Address the limitations of GBMs (XGBoost) being less interpretable and are useful only if the performance diverges significantly in future testing.