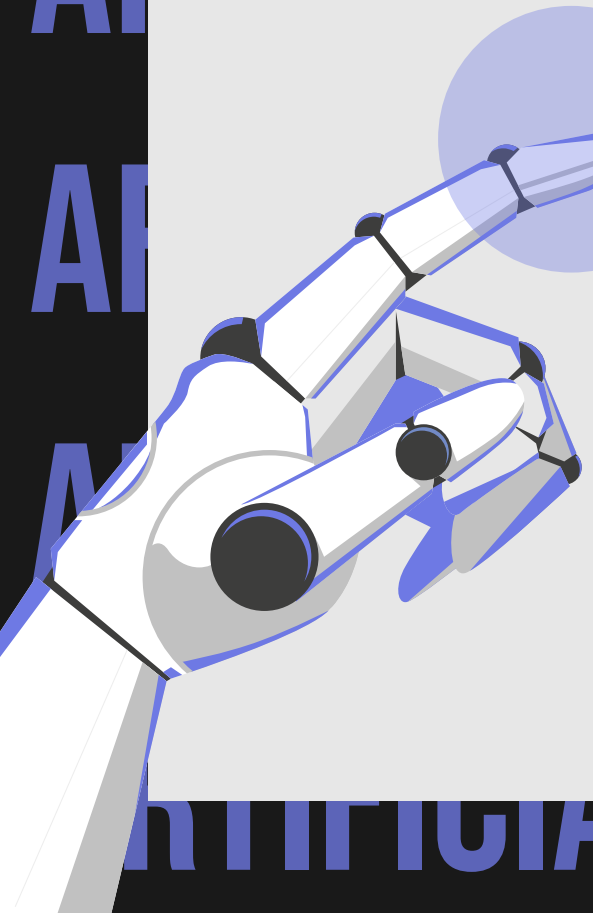
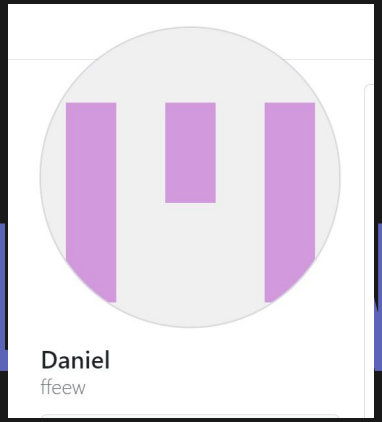


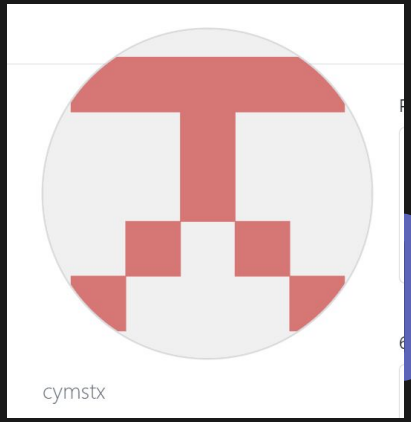
GPTGONE

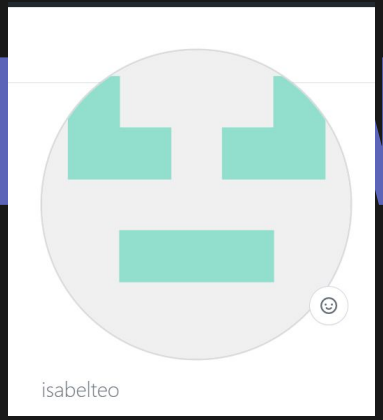
Pitch

OUR GROUP

Our team is comprised of the brightest minds from NUS and SUTD who share a deep passion for building a better world through design.
With our extensive training in Artificial Intelligence and Software Engineering, we have the skills and expertise to create innovative solutions such as GPTGone.







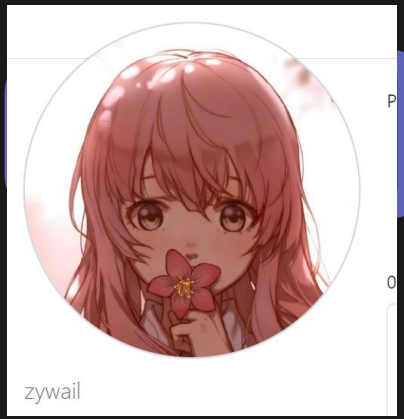


TABLE OF CONTENTS

ARTIFICIAL INTELLIGENCE (AI)

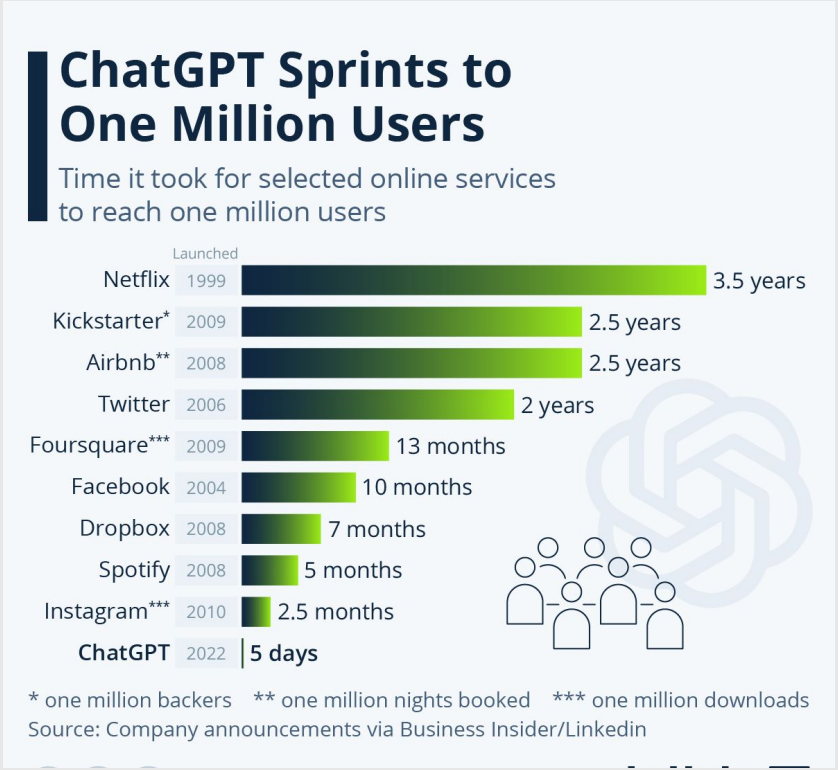
MAIN CONCERNS BROUGHT BY CHATGPT

The sophisticated and natural responses of ChatGPT are hard to detect. With the explosion of users, some have put the tool to nefarious use. This has raised concerns in the area of:

DISINFORMATION DETECTION

SPAM DETECTION

PLAGIARISM DETECTION



PROBLEM VS. SOLUTION

PROBLEM

ChatGPT's application has caused concern for causing disinformation or spam in forums

GPTGone provides a solution to detect short-text content, which some existing detectors (e.g. from OpenAI) cannot support due to minimum character count requirement

SOLUTION

ARTIFICIAL INTELLIGENCE (AI)

PROBLEM VS. SOLUTION

PROBLEM

ChatGPT's application in academic plagiarism is a pressing issue that affects Universities worldwide.

SOLUTION

GPTGone provides a solution for universities to enforce anti-plagiarism rules.

ARTIFICIAL INTELLIGENCE (AI)

/[AI]

02.

MODEL RESULTS

11 MODELS

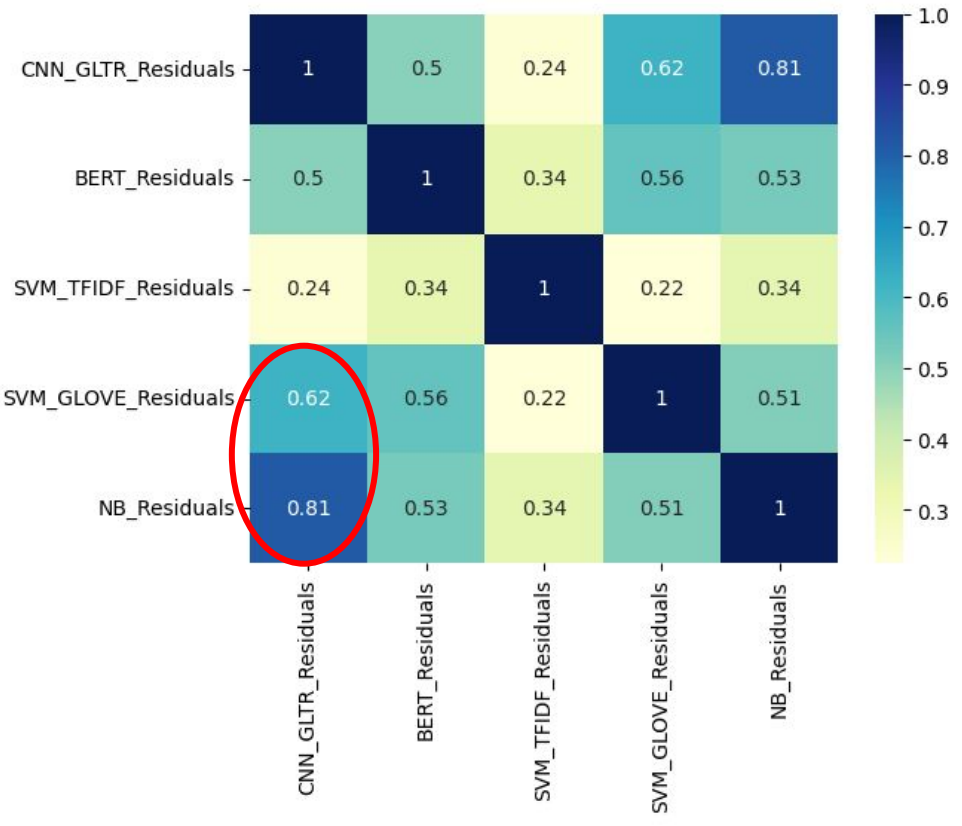
~20+ EXPERIMENTS

COVERING DIFFERENT EMBEDDING CHOICES AND HYPERPARAMETER CHOICES

03.

WEIGHTED AVERAGE ENSEMBLE RESULTS

MODEL SELECTION: DIVERSITY CRITERIA



MODEL SELECTION: PERFORMANCE CRITERIA

HOLDOUT PERFORMANCE	SVM-TFIDF	NAIVE BAYES	BERT	CNN	SVM-GLOVE
ACCURACY	0.96	0.92	0.91	0.83	0.65
ROC-AUC	0.96	0.92	0.91	0.83	0.65
F1 SCORE	0.96	0.92	0.90	0.84	0.61

FINAL SELECTED MODELS WITH GRID-SEARCHED WEIGHTS

BERT

Weighted at 0.25

CNN WITH GLTR FEATURES

Weighted at 0.25

SVM-TFIDF

Weighted at 0.5

ARTIFICIAL
(AI)

ARTIFICIAL INTE (AI)

96%

ACCURACY, ROC-AUC AND F1 FOR FINAL ENSEMBLE ON HOLDOUT

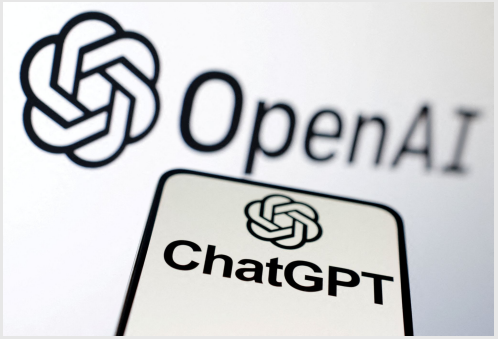
(AI)

04.

EXISTING TOOLS AND WHERE THEY FALL SHORT

COMPETITORS

GPTZERO



OPEN AI'S TEXT CLASSIFIER

Benchmark for ChatGPT detection solutions

GPTGONE

We use an ensemble of 3 models with different architectures in order to classify text

OPENAI'S TEXT CLASSIFIER

Consists of only neural networks, which can be inaccurate outside the training data

GPTGONE

Supports any length

OPENAI'S TEXT CLASSIFIER

Minimum 1000 characters

COMPARISON TO OPEN AI ON SAMPLE DATASET

HOLDOUT PERFORMANCE (~500 SAMPLES)	ENSEMBLE	OPEN AI
ACCURACY	0.94	0.68
ROC-AUC	0.94	0.67
F1 SCORE	0.95	0.74

GPTGONE

We highlight AI-written parts. In addition, we share our model prediction probabilities and allow users to adjust model sensitivity

GPTZERO

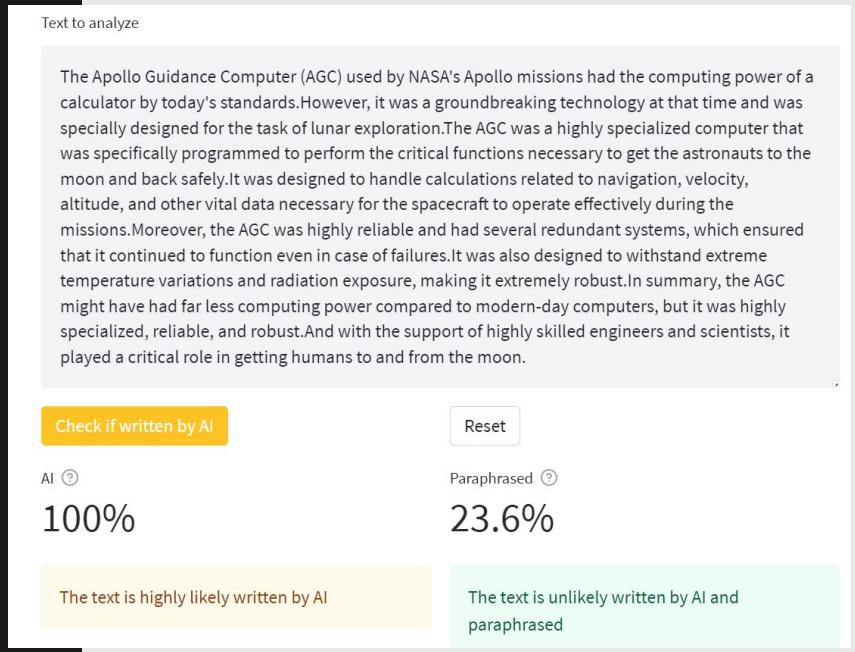
Provides perplexity scores, burstiness scores, and highlighting of AI-written parts in text as part of model explainability

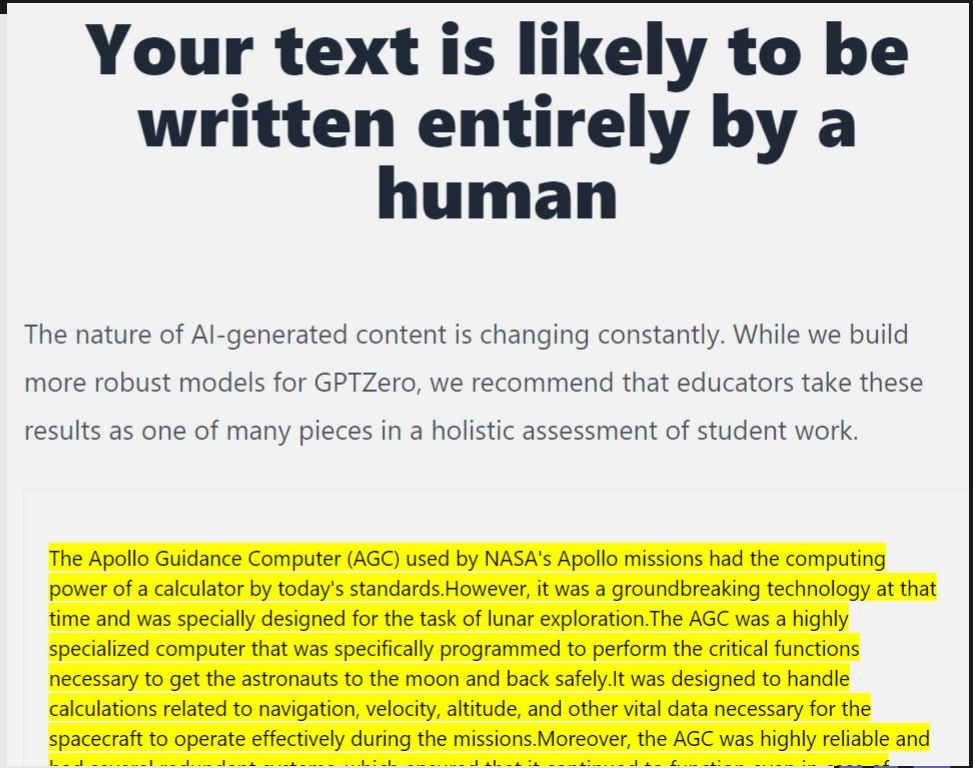
COMPARISON TO GPTZERO ON SAMPLE DATASET

As GPTZero API requires payment, we compared on a smaller sample of 10 data-points.

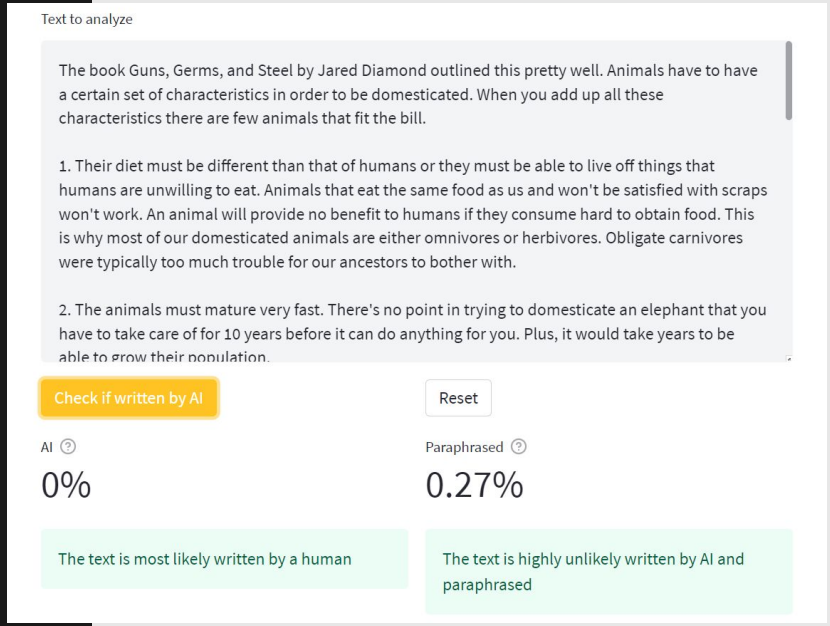
HOLDOUT PERFORMANCE (~10 SAMPLES)	ENSEMBLE	GPT-ZERO
HUMAN	All correct	2 out of 5 wrong
AI	All correct	1 out of 5 wrong

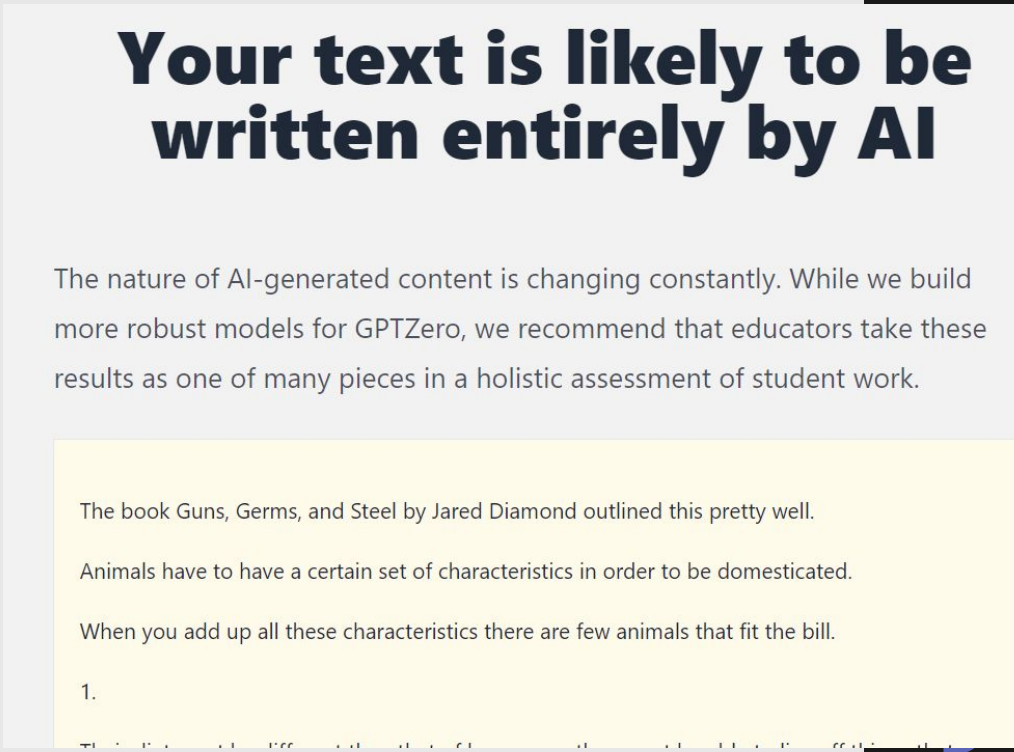
GPTGONE VS GPTZERO ON AI EXAMPLE





GPTGONE VS GPTZERO ON HUMAN EXAMPLE



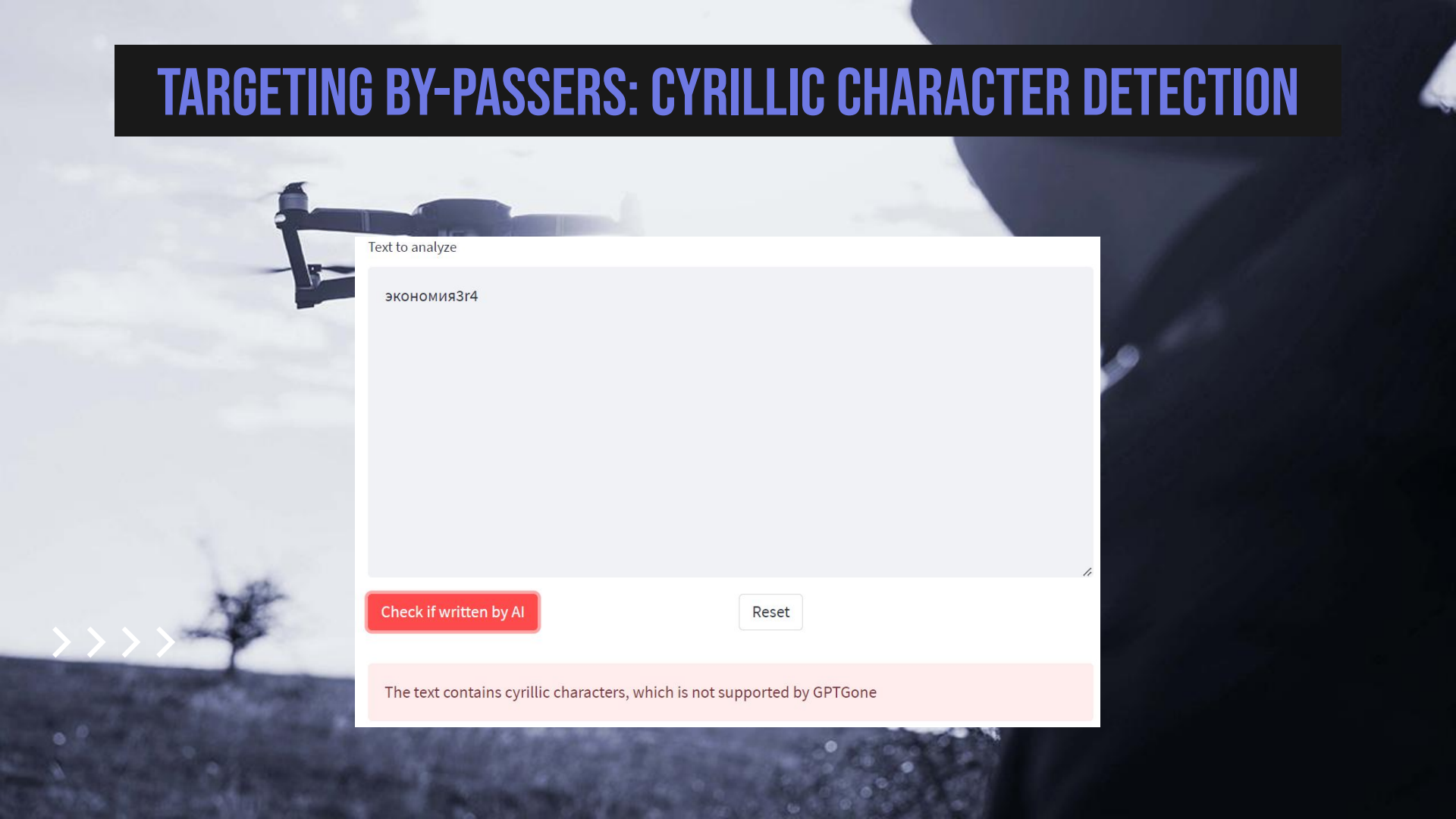


05.

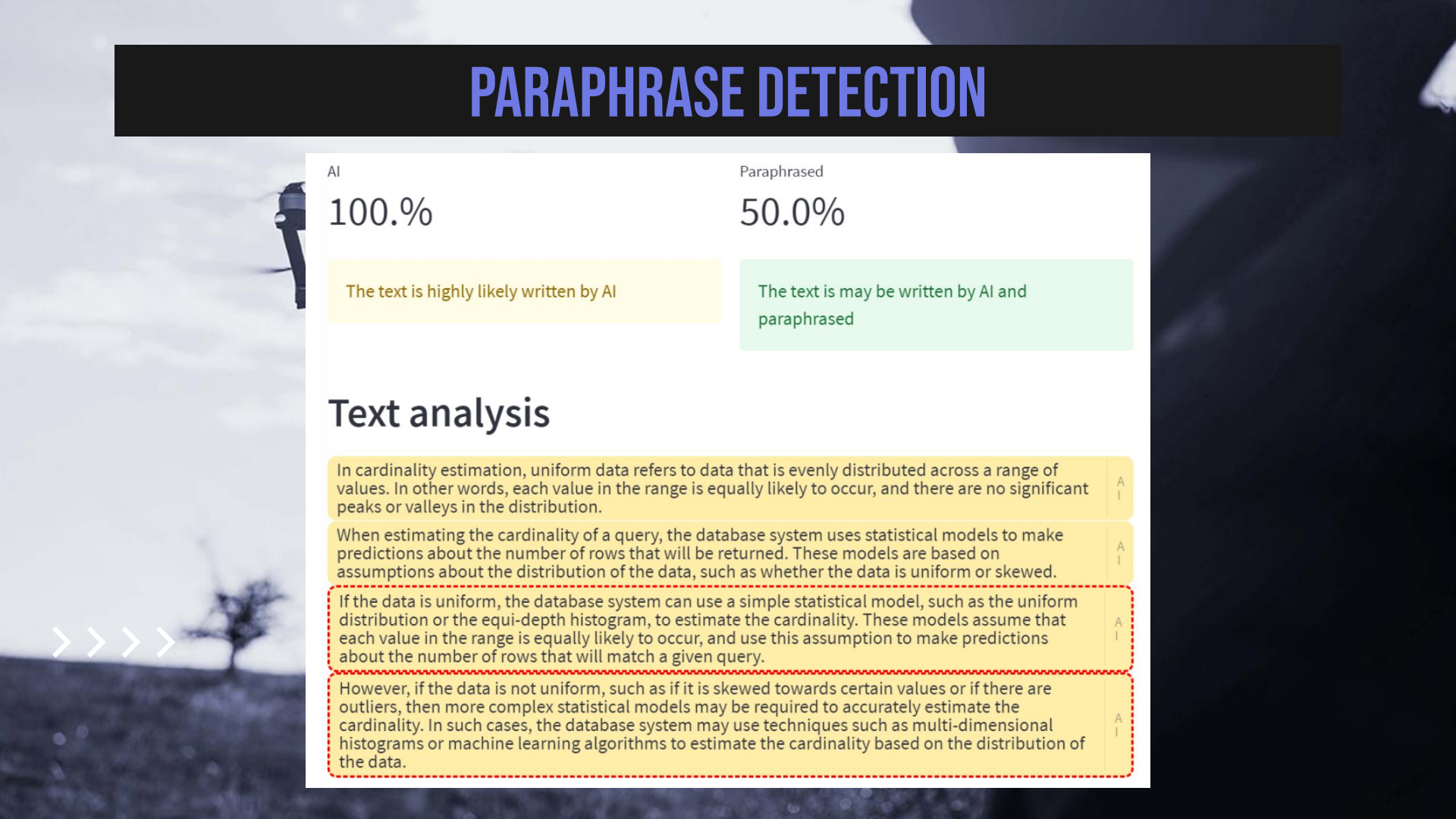
OUR UNIQUE SELLING POINTS

What we offer that both our competitors do not offer

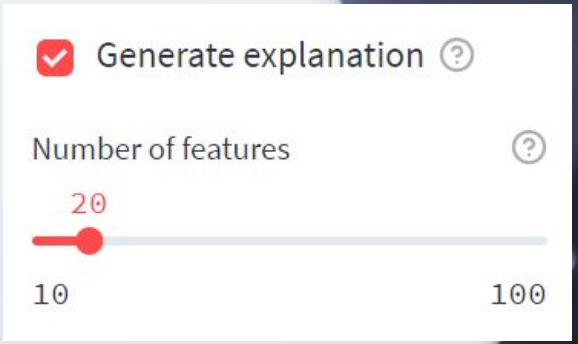
TARGETING BY-PASSERS: CYRILLIC CHARACTER DETECTION

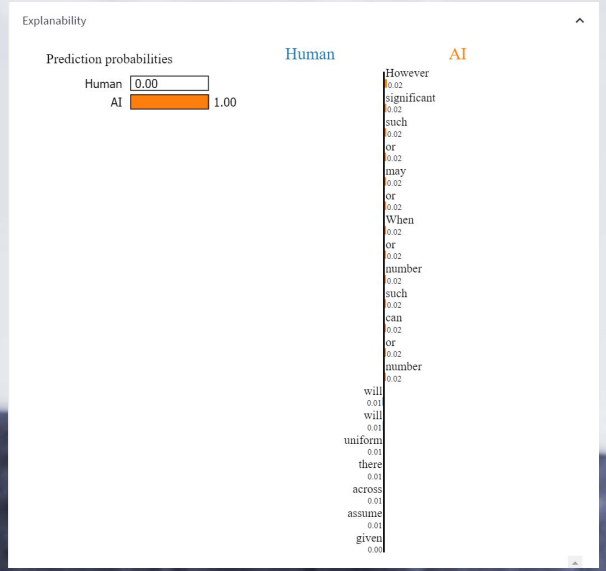


PARAPHRASE DETECTION



EXPLAINABILITY





Text with highlighted words

In cardinality estimation, uniform data refers to data that is evenly distributed across a range of values. In other words, each value in the range is equally likely to occur, and there are no significant peaks or valleys in the distribution.

When estimating the cardinality of a query, the database system uses statistical models to make predictions about the number of rows that will be returned. These models are based on assumptions about the distribution of the data, such as whether the data is uniform or skewed.

If the data is uniform, the database system can use a simple statistical model, such as the uniform distribution or the equi-depth histogram, to estimate the cardinality. These models assume that each value in the range is equally likely to occur, and use this assumption to make predictions about the number of rows that will match a given query.

MULTI VARIATIONS

Variation

Essay

Essay

Short-Text

Text to analyze

The k-means clustering concept sounds pretty great, right? It's simple to understand, relatively easy to implement, and can be applied in quite a number of use cases. But there are certain drawbacks and limitations that we need to be aware of.

Let's take the same income-expenditure example we saw above. The k-means algorithm seems to be working pretty well, right? Hold on – if you look closely, you will notice that all the clusters created have a circular shape. This is because the centroids of the clusters are updated iteratively using the mean value.

Now, consider the following example where the distribution of points is not in a circular form. What do you think will happen if we use k-means clustering on this data? It would still attempt to group the data points in a circular fashion. That's not great! k-means fails to identify the right clusters:

Check if written by AI

Reset

STUDENTS

Plagiarism Prevention

EDUCATORS

Plagiarism Detection

ONLINE FORUMS/SOCIAL MEDIA

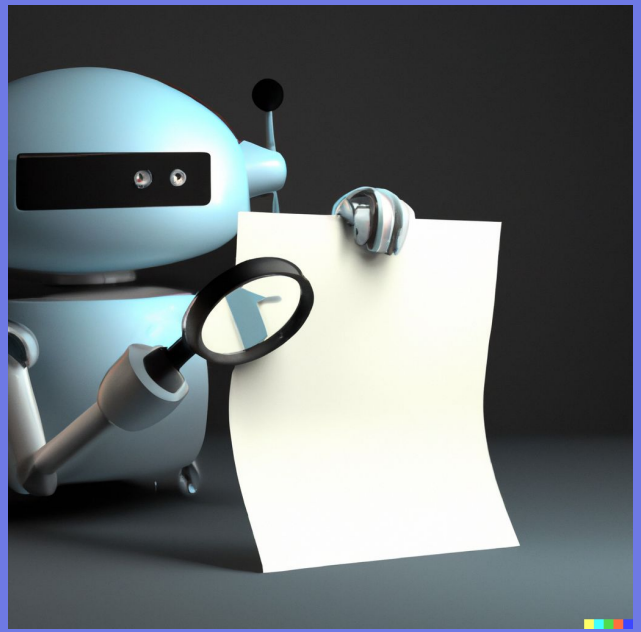
Disinformation and Spam detection

[AI]

06.

DEMO & CONCLUSION

QUESTIONS?



/[AI]