# AI TEXT DETECTOR

**MOTIVATION:**

**TO STOP PLAGIARISM AND GIVE BENEFIT WHO IS ACTUALLY HARDWORKER.**

**INTRODUCTION:**

*This project involves the development of an AI system which would help to predict the document’s information about how much this document contain AI generated text.*

*This is based on NLP and machine learning algorithm. This system takes a document which contains text and tells us that how much this document is written by human and AI tools.*

**INSPIRATION:**

*I have seen that our professors give us some assignment in which we must write something about some topics and some students write their self, but other students copy the solutions generated by AI tools and paste in their assignment and they get same marks. So, for this I realized that it is not fair and I building a system.*

**METHODOLOGY:**

The project would be using various tools related to AI/ML:

1. The problem of detecting AI-generated text is considered as a binary classification problem. The detector D(s) maps the sample s to a real number for possible binary classification, and then compares it against a threshold q to perform detection. D(s)>=q is considered as AI-generated text while D(s) <q is classified as human-generated text. Then we can perform ROC and AUROC to describe the performance of detector.

(B). We train our model by using some dataset (**HC3 and some available on Kaggle recently**

**going on competition)** and in this process we do preprocessing, and we will use python

library as NumPy and pandas, seaborn, Mat plot and we apply decision tree, KNN ,SVM and various ML algorithms along with DL architectures such as transformers etx

(C ) We make tokens of our document text and then check its probability appearing in set of

human generated and AI generated and, on this basis, we classified how many tokens are ai

generated and human generated.

(D) We fine tune model and improve their efficiency and extend their limitation.

**GOALS:**

**TILL MIDTERM EVALYATION**

* To acquire the required skillset to build system using some available code on Kaggle.
* Gain greater experience of using ML algorithms on practical datasets(hc3 and from Kaggle)
* Performing necessary data collection and data cleaning.

**ULTIMATE GOAL**

* To increase the accuracy of the prediction of the model.
* And make the model better so that its performance could become good .

**REFERENCE**

1. <https://huggingface.co/datasets/Hello-SimpleAI/HC3>
2. <https://github.com/yuchuantian/aigc_text_detector>
3. <https://www.kaggle.com/code/xiaocao123/train-your-own-tokenizer>
4. <https://arxiv.org/ftp/arxiv/papers/2311/2311.15565.pdf>
5. <https://www.kaggle.com/competitions/llm-detect-ai-generated-text?utm_medium=email&utm_source=gamma&utm_campaign=comp-llm-text-2023>

**ABOUT ME**

I am a second year data science and artificial intelligence student. After trying my hand at a lot of different things ,I found my deep interest in the field of AI and machine learning and data science problem. I aspire to use my knowledge to solve real life problems for the society at large.

LinkedIn profile link:

<https://www.linkedin.com/in/pushpendra-mishra-a21a56268?lipi=urn%3Ali%3Apage%3Ad_flagship3_profile_view_base_contact_details%3BrJdzeN39SRaEeiknqUFSbw%3D%3D>

**Coding experience**

* C++, python
* Completed a course on data science
* Knowledge of oops and data structure (completed from coursera)
* Beginner at HTML ,CSS AND JAVA SCIPT
* Knowledge of python library like numpy ,pandas,seaborn ,matplot .(completed from a Guwahati course)
* Knowledge of supervised machine learning (completed from coursera)
* Basic knowledge of neural network and deep learning ( completed from coursera)
* Completed course on advanced machine learning from coursera.