



# IMAGE CLASSIFICATION

Harry Potter Characters



# WHAT IS ARTIFICIAL INTELLIGENCE?

*AI systems will typically demonstrate at least some of the following behaviors associated with human intelligence: planning, learning, reasoning, problem solving, knowledge representation, perception, motion, and manipulation and, to a lesser extent, social intelligence and creativity.*

## WHAT IS DEEP VISION?

***DeepVision is devoted to providing agile, innovative and profitable state of the art deep learning based computer vision solutions applied to several industries by leveraging cutting edge technologies and trends***



## OBJECTIVE:

***The project classifies 6 characters of the harry potter Novel:***

1. Harry potter
2. Draco Malfoy
3. Albus Dumbledore
4. Hermonie Granger
5. Ron Weasley
6. Lord Voldemort



## APPLICATIONS

- **Natural Language Generation:** *it's a tool that produces text from the computer data. Currently used in customer service, report generation, and summarizing business intelligence insights.*
- **Speech Recognition:** *Transcribes and transforms human speech into a format useful for computer applications. Presently used in interactive voice response systems and mobile applications.*
- **Virtual Agent:** *A Virtual Agent is a computer generated, animated, artificial intelligence virtual character (usually with anthropomorphic appearance) that serves as an online customer service representative. It leads an intelligent conversation with users, responds to their questions and performs adequate non-verbal behavior. An example of a typical Virtual Agent is Lousie, the Virtual Agent of eBay, created by a French/American developer VirtuOz.*



# PROJECT DESCRIPTION :

*Notebook 1*

*Notebook 2*

*Notebook 3*

# NOTEBOOK 1

- *Downloading and uploading of dataset::*

1. Data is made by using the web scrapping technique.
2. Data is then uploaded on kaggle website.
3. Data is then downloaded into our notebook by using the api commands

Data has been made public by Me, Try it→

Download by using this api command---→ `kaggle datasets download -d vaibhavagarwal4/harry-and-five-others`



# NOTEBOOK 2

## 1. Training of model :

- a. Data is downloaded and unzipped
- b. Data model for training is used here is resnet 50.
- c. Data is trained upto 4 epochs.

2. Training model is saved into google drive as stage-1.pth and export.pkl

3. Only the saved model is now needed for prediction purposes.





# NOTEBOOK 3

1. Contains Test Data for Test Purposes.
2. A video is Generated for the test data samples.
- ✓ 3. A function for user also provided to custom check the output of the model by providing the url of the image.

# ACKNOWLEDGEMENT

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