National College of Ireland

Configuration Manual

MSc Research Project
MSc in Artificial Intelligence

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MSc Project Submission Sheet

School of Computing

Student Name:	Lazaro Javier Martinez Martinez		
Student ID:	x22132872		
Programme:	MSc in Artificial Intelligence	**Year:**	2024
Module:	MSc Research Project		
Lecturer:	Devanshu Anand		
Submission Due Date:	12/08/2024		
Project Title:	Classifying AI-Generated images using EfficientNet-B0, Res-Net50 and VGG16 CNN ML models		
Word Count:	543	**Page Count:**	2

I hereby certify that the information contained in this (my submission) is information pertaining to research I conducted for this project. All information other than my own contribution will be fully referenced and listed in the relevant bibliography section at the rear of the project.
ALL internet material must be referenced in the bibliography section. Students are required to use the Referencing Standard specified in the report template. To use other author's written or electronic work is illegal (plagiarism) and may result in disciplinary action.

Signature: Lazaro Javier Martinez Martinez

Date: 12/08/2024

PLEASE READ THE FOLLOWING INSTRUCTIONS AND CHECKLIST

Attach a completed copy of this sheet to each project (including multiple copies)	□
Attach a Moodle submission receipt of the online project submission, to each project (including multiple copies).	□
You must ensure that you retain a HARD COPY of the project, both for your own reference and in case a project is lost or mislaid. It is not sufficient to keep a copy on computer.	□

Assignments that are submitted to the Programme Coordinator Office must be placed into the assignment box located outside the office.

Office Use Only	
Signature:	
Date:	
Penalty Applied (if applicable):	

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1 Software and coding tools

- Anaconda Navigator (Anaconda, 2024) software was used to set up the user environment.
- Jupyter notebooks were executed from Anaconda Navigator and used to write and run the Python codes.

2 Python Libraries

These are the Python libraries that must be imported and/or installed to run the Jupyter notebooks created:

- Collections
- Math
- Matplotlib
- Numpy
- Os
- Random
- Seaborn
- Shutil
- Sklearn
- Pathlib
- PIL
- Tensorflow Keras
- Math

3 Datasets and Jupyter notebooks path structure

- The four datasets root folders and the Jupyter notebooks must be within the same folder so the code can read the dataset paths properly. Each dataset has its dedicated folder and two notebooks are created for each dataset (one for pre-processing tasks and other for ML model building). This is the structure of the folder:
    - dataset1_ai-generated-images-vs-real-images (Kaggle Dataset 1, 2024)
        - AI
        - Real
    - dataset2_shoes-dataset-real-and-ai-generated-images (Kaggle Dataset 2, 2024)
        - AI
        - Real
    - dataset3_dataset-of-ai-generated-fruits-and-real-fruits (Kaggle Dataset 3, 2024)
        - AI
        - Real

- dataset4_midjourney-cifake-inspired (Kaggle Dataset 4, 2024)
  - AI
  - Real
- JupyterNotebook_Dataset1_MLmodel.ipynb
- JupyterNotebook_Dataset1_preprocessing.ipynb
- JupyterNotebook_Dataset2_MLmodel.ipynb
- JupyterNotebook_Dataset2_preprocessing.ipynb
- JupyterNotebook_Dataset3_MLmodel.ipynb
- JupyterNotebook_Dataset3_preprocessing.ipynb
- JupyterNotebook_Dataset4_MLmodel.ipynb
- JupyterNotebook_Dataset4_preprocessing.ipynb

4 References

Anaconda. (2024, 04 06). Retrieved from Download Now: https://www.anaconda.com/download/success

Kaggle Dataset 1. (2024, 04 06). Retrieved from AI Generated Images VS Real Images: https://www.kaggle.com/datasets/cashbowman/ai-generated-images-vs-real-images

Kaggle Dataset 2. (2024, 04 06). Retrieved from Shoes Dataset: Real and AI-Generated Images: https://www.kaggle.com/datasets/sunnykakar/shoes-dataset-real-and-ai-generated-images

Kaggle Dataset 3. (2024, 04 06). Retrieved from Dataset of AI Generated Fruits and Real Fruits: https://www.kaggle.com/datasets/osmankagankurnaz/dataset-of-ai-generated-fruits-and-real-fruits

Kaggle Dataset 4. (2024, 04 06). Retrieved from Midjourney CIFAKE-Inspired: https://www.kaggle.com/datasets/mariammarioma/midjourney-cifake-inspired

[NOTE: Paper references have not been added here, they are available in the paper PDF]