



AI INFRASTRUCTURE AND ARCH.


ASSIGNMENT 1: IMAGE CLASSIFIER

NAME: SAMRAT THAPA
(200481763)





CONTENT

1. INTRODUCTION
 2. TOOL AND TECHNOLOGY USED
 3. PROJECT SUMMARY
 4. DEMO OF THE AZURE COGNITIVE SERVICES
- 

INTRODUCTION

IN THIS ASSIGNMENT, WE WILL BE LOOKING INTO MICROSOFT AZURE COGNITIVE SERVICES.

THE COGNITIVE SERVICES AIMS TO BRING THE AI WITHIN THE REACH OF EVERY DEVELOPER AND DATA SCIENTIST WITH A SIMPLE API CALL TO SOLVE THE PROBLEMS IN THE FIELD OF ARTIFICIAL INTELLIGENCE. WE CAN EMBED THE SERVICE INTO OUR APPS OR WEBSITE, AND WE ARE READY TO GO.

THE SERVICE HAVE BEEN PACKED INTO DISCRETE COMPONENTS . THE 5 IMPORTANT COGNITIVE SERVICES PROVIDED BY MICROSOFT AZURE ARE:

1. VISION
2. SPEECH
3. LANGUAGE
4. KNOWLEDGE
5. SEARCH

TOOLS AND TECHNOLOGY USED

AMONG ALL THE SERVICES PROVIDED BY AZURE, WE WILL BE LOOKING INTO THEIR IMAGE CLASSIFICATION.

THE IMAGE CLASSIFICATION IS A SUPERVISED MACHINE LEARNING PROBLEM WHERE WE PROVIDE THE TRAINING DATASET WITH THE LABEL AND USE THE LABELED DATASET TO TRAIN THE ALGORITHM. THE ALGORITHM WILL GIVE US SOME PREDICTION WITH CERTAIN PERCENTAGE OF PROBABILITY WHAT THE IMAGE IS USING CNN WITH FEATURE EXTRACTION.



PROJECT SUMMARY

IN THE PROJECT, WE ARE CREATING A COGNITIVE IMAGE CLASSIFICATION SERVICES WHICH CLASSIFY SNEAKERS IMAGES. NOWADAYS, THE IMAGE CLASSIFICATION IS HIGHLY USED IN DIFFERENT FIELDS LIKE OBJECT DETECTION. THIS WILL BE AN EXAMPLE OF THAT.

FOR THE PURPOSE OF CHALLENGING THE CLASSIFIER AND TO TEST HOW ACCURATE THE IMAGE CLASSIFICATION OF MICROSOFT IS WE WILL BE USING SIMILAR SNEAKERS IMAGES. THEY ARE:

1. NIKE
2. REEBOK
3. PUMA
4. ADIDAS



DEMO OF THE AZURE COGNITIVE SERVICES

The background is a light gray gradient. In the top-left and bottom-right corners, there are several realistic water droplets of various sizes, some overlapping. The droplets have highlights and shadows, giving them a three-dimensional appearance.

THANK YOU