IBM-Project-46331-1660745544

Deep Learning Fundus Image Analysis for Early Detection of Diabetic Retinopathy Pre Requisites
Install the following python packages

pip install
numpy pip
install
pandas
pip install
tensorflow==2.3.2 pip
install keras==2.3.1
pip install
Flask Prior
Knowledge
You must have prior knowledge of following topics to complete this project.

Deep Learning
Concepts CNN
VGG16
ResNet-
50
Inceptio
n-V3
Xception
Flask:
Flask is a popular Python web framework, meaning it is a third-party Python library used for developing web applications.
Project Objectives
Know fundamental concepts and techniques of transfer learning like Xception. Gain a broad understanding of image data. Know how to pre-process/clean the data using different data pre-processing techniques. Know how to build a web application using the Flask framework.

Project Flow
The user interacts with the UI (User Interface) to choose the image. The chosen image analyzed by the model which is integrated with flask application. The Xception Model analyzes the image, then the prediction is showcased on the Flask UI.

To accomplish this

Data
Collection
Data
Preprocessing
Model Building
Cloudant DB
Application
Building
Project
Structure
Create project structure as

shown below Structure

Dataset link
Kaggle Dataset link

Download the dataset Use CNN and add dense layer Train

and save the model Cloud
Register and login to cloud
Create service instance and
service essentials Launch
cloudant DB and create database
Application Building
-> In this phase we will build a simple HTML page that runs
python code using flask

Finally register the model in IBM Cloud and train the model Footer
© 2022
GitHub, Inc.
Footer
navigation
Terms
Priva
cy
Secur
ity
Statu
s
Docs
Contact
GitHub
Pricing
API
Train
ing
Blog
About