



Language Identification

Description:

This is an audio classification project in which we will use Pytorch for audio processing and CNN for audio classification. We will use Indian language audio data from four classes, Hindi, Tamil, Telugu, and Kannada, and predict the language spoken in the audio.

Start Date: 3rd Jan'23

Doubt Clear Time:

Course Time: Flexible

Features:

- # Do Everything In Industry Grade Lab
- # Learn As Per Your Timeline
- # Hands-On Industry Real-Time Projects.
- # Self Paced Learning

Dashboard Access

What we learn:

Real Time Projects

Language Identification

Audio preprocessing steps to build

Train and evaluate Deep learning models in PyTorch

Creating custom PyTorch dataset and dataloader

Use convolution neural network for audio classification.

Modular coding approach for training and prediction pipeline

Building Flask App

Learn about GCP basics

CI/CD tool like Github Actions for deployment

Requirements:

System with minimum i3 processor or better

At least 4 GB of RAM

Working internet connection

Dedication to learn

Instructor:

Name:

Aravind S

Description:

Data scientist with over a year of experience in developing advanced deep learning projects, core expertise in machine learning and NLP, proficient in data preprocessing and model

building, and has closely mentored over 100 students from various domains.

>Welcome to the Course:

>>Course Overview

>>Dashboard Introduction

>Project :- Language

Identification:

>>Introduction of Instructor

>>Project Overview

>>End Notes

>>Problem Description

>>Understand the application scope

>>End Notes

>>Solution Description

>>Notebook Walkthrough

>>Tour to Architecture diagram

>>Cost involved

>>End Notes

>>Structure overview

>>Data Ingestion

>>Data Validation

>>Data Transformation

- >>Model Training and Tunning
- >>Model Evaluation
- >>Model Pusher
- >>Training Pipeline
- >>Frontend app design
- >>Tour to the cloud and Service Overview
- >>IAM setup
- >>GCP setup
- >>Workflow
- >>Adding Self hosted runner
- >>Conclude the project
- >>Points to improve from current project
- >>Assignments & External Resources