

Front End Documentation

We have used Angular for frontend along with Angular Material for styling. There are various components and services that are being used and we give an overview of them ahead

App

The app contains various pages that display everything to the user. We provide the structure below and also a brief description regarding the function of the component.

Home

The code for homepage of our application resides here in this component

Pages

▼ Data

This tab contains three main components:

1. **Upload:** This component represents the main upload page
2. **Augmentation** contains the Edit and Transform Page
3. **Data-visualization:** This represents the third tab where we show some examples from various classes

Along with this, there are subcomponents that are being used inside these main components:

1. **Crop:** This component is shown when the user clicks on Crop icon in the gallery
2. **Controls:** Contains the sliders used in transformation
3. **Carousel:** This contains the carousel shown in Transformation Page
4. **Gallery:** This represents the images in database as a gallery in upload and edit & transformation page.

▼ Network

This also contains 3 main components:

1. **Display:** This displays the current network
2. **Modify:** This page allows user to change the parameters to be used in model training
3. **Train:** Allows the user to train on the parameters chosen in the Modify Tab

▼ Results

There are 3 main sub components:

1. **Embeddings:** This component shows predicted vs original labels of best 5 and worst 5 classes
2. **Wrong-results:** This contains the confusion matrix and an interface to select images on which to receive suggestions
3. **Suggestions:** This component shows suggestions on images selected in wrong-results tab.

Apart from the pages that display the things, we use services that perform various actions like interaction between components, sending API requests etc

Services

▼ Data Service

This contains the data regarding images selected in gallery, so that this information can be shared across components

▼ Http Service

This contains the logic for interacting with the REST API being used in backend

▼ **Network Service**

This contains information about current network and its parameters, so that this can be used across components

▼ **Transform Service**

This is used to call backend for performing transformations on the input data.

▼ **Visualization Service**

This is used to get images from backend to be shown on the visualization page

Extra-Components

This contains some helper components

▼ **Custom Dropdown**

This is a simple dropdown menu, customised according to our theme. This has been used at various places like upload, gallery and train components

▼ **Dialog**

A popup is shown at various places inside the application. The code for it lies [here](#).