

Smart Recipe

Team 14

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Goals and Objectives

When we decide to prepare a meal it is always difficult to make a decision what to cook from available ingredients. I heard a lot of people saying: "It is not difficult to cook it is difficult to come up with idea what to cook". Purpose of our project is to create mobile application which will take a picture of products on a surface such as vegetables, fruits, etc and will display recipes based on ingredients on the picture. We will be using deep learning to train our model to recognize vegetables, fruits and other ingredients which will make our project unique. After training our model we will make an API calls to search for appropriate recipe based on recognized products and display recipes to the user. User can then pick what he wants to cook from list of recipes.

For our project we will need to come up with user friendly UI for Android application, collect datasets of ingredients, train and test our model and perform image recognition on a picture. After image classification we will search for relevant recipe by making API calls and will output results in a listview. We have not decided yet which API will be used to get recipes for our output.

Related Work

Here is the list of projects which were done by other:

1. Image recognition -
<https://medium.com/@dvshah13/project-image-recognition-1d316d04cb4c>
2. Image classification using CNN -
<https://medium.com/@ksusorokina/image-classification-with-convolutional-neural-networks-496815db12a8>
3. Object recognition for Amazon -
<https://sourcedexter.com/amazing-tensorflow-github-projects/>

References:

1. <http://neuralnetworksanddeeplearning.com/>
2. <https://www.technologyreview.com/s/513696/deep-learning/>