LoveIt!

a user friendly image classification platform

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DSI 420 Capstone Project

Agenda

1 Problem Statement

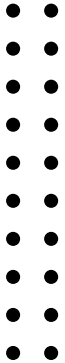
2 Solution

3 Demo

4 Methodology

5 Future Development

6 Findings & Conclusion



1

Meet Lydia

Lydia is a little nervous nowadays. She is not sure if she can find the perfect gift for her girlfriend.

1

Does she like this?

Lydia’s girlfriend will tell her she likes it, but is that genuine?

Problem Statement

1

looking for a perfect gift is not fun because ...

- The giver is not sure if the recipient will like the gift
- The recipient can't decide how respond if they don't like it
- The recipient may think that giver still doesn't know the recipient well enough ?

2

SOLUTION

Gift Givers

Takes the stress out of the process

Shows the sentiment

Gift Recipient

Sentimental and Useful

Doesn’t need to return/change

Doesn’t cause pretentious responses

Solution

2

LoveIt!

A user friendly image classification platform that helps people to choose the perfect gift for the loved ones!

Demo

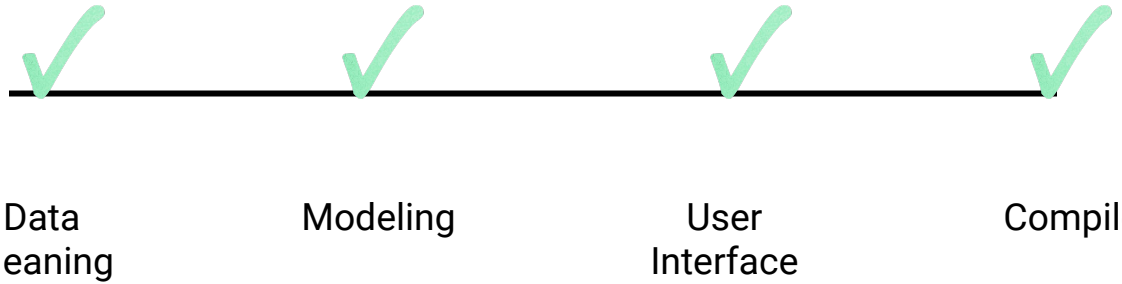
3

Demo

3

Methodology

3



Methodology

3

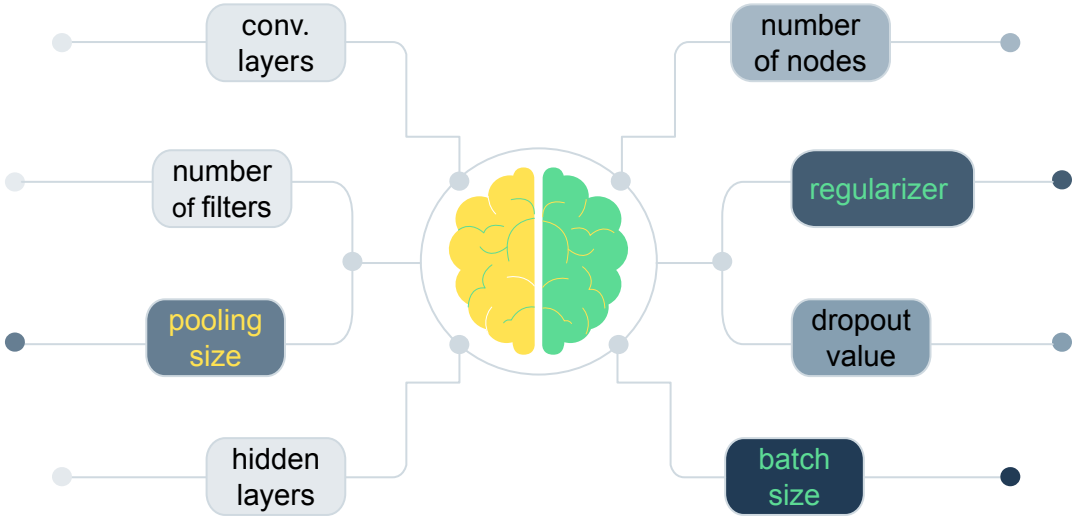
Data Cleaning

1	Image Data	Extracting image data with matplotlib image library
2	Normalizing	A value between 0 - 1
3	Resizing	Resizing the image data with OpenCV library cv2
4	Target	Prepared the target data {0: “disliked”, 1: “liked”}

Methodology

3

Modeling - Convolutional Neural Network



Methodology

3

Hyperparameter Criteria

ACCURACY

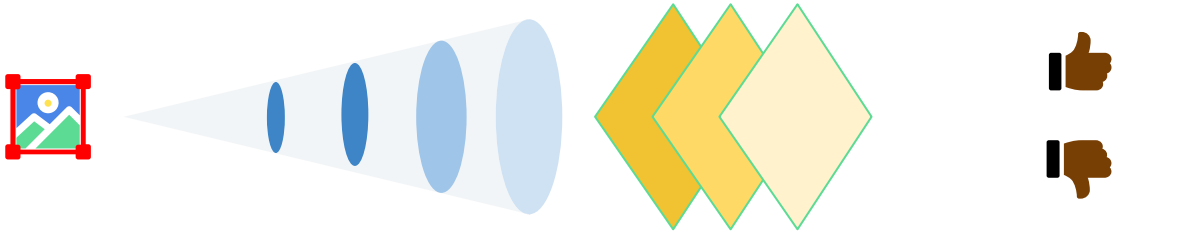
TIME

COMPUTATIONAL POWER

Methodology

3

Modeling - Convolutional Neural Network



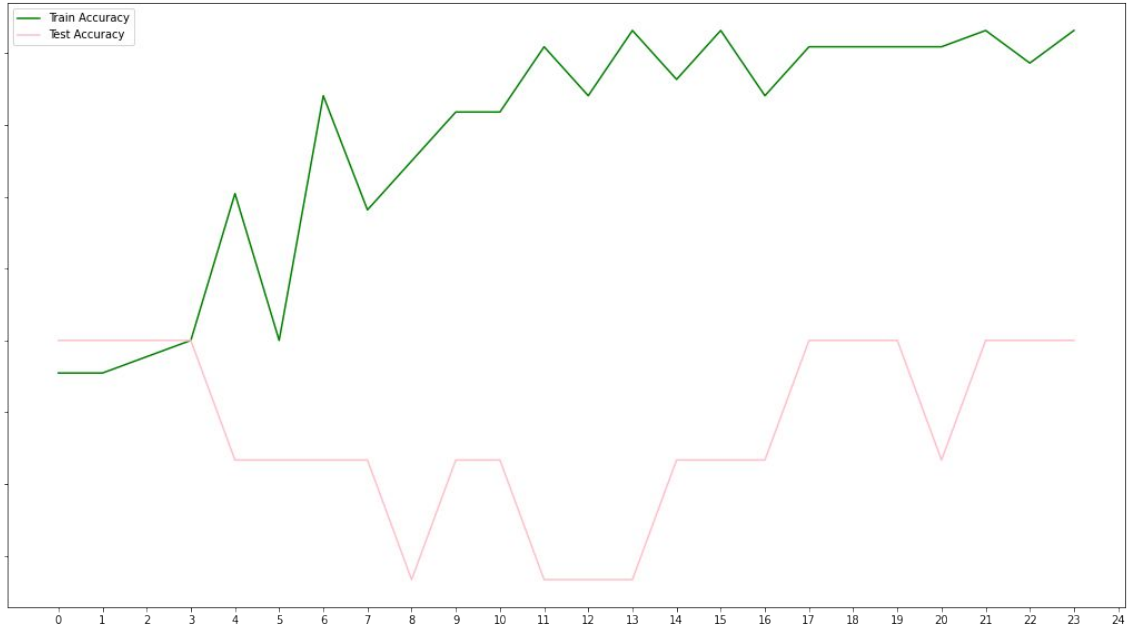
4 convolutional layers

3 dense layers

multiclass
categorical

Methodology

5



Methodology

3

Flask

HTML

Future Developments

4

IMAGE UPLOAD
Drag & Drop

PERSONALIZATION
Personal accounts with username & password

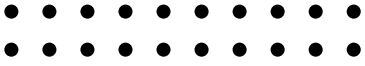
MOBILE APP

BROWSER EXTENSION

DEPLOYMENT

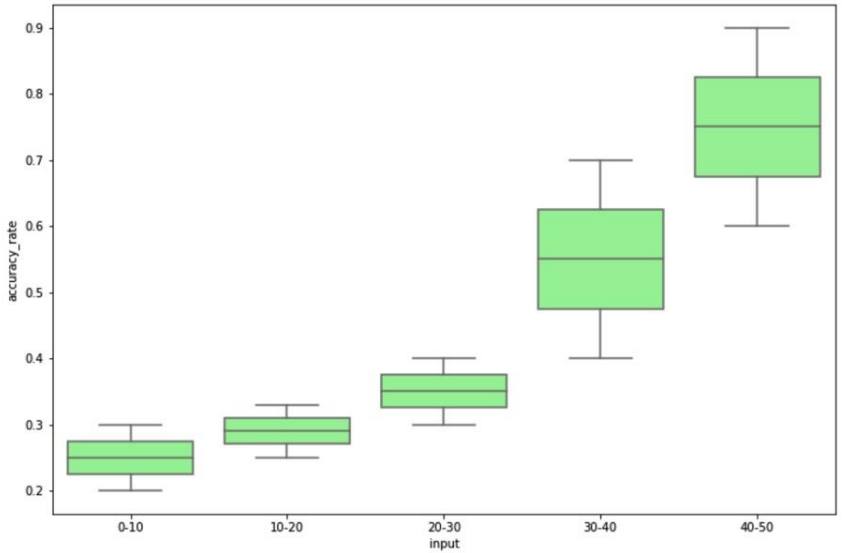
“The best thing about a boolean is even if you are wrong, you are only off by a bit.”

– Anonymous



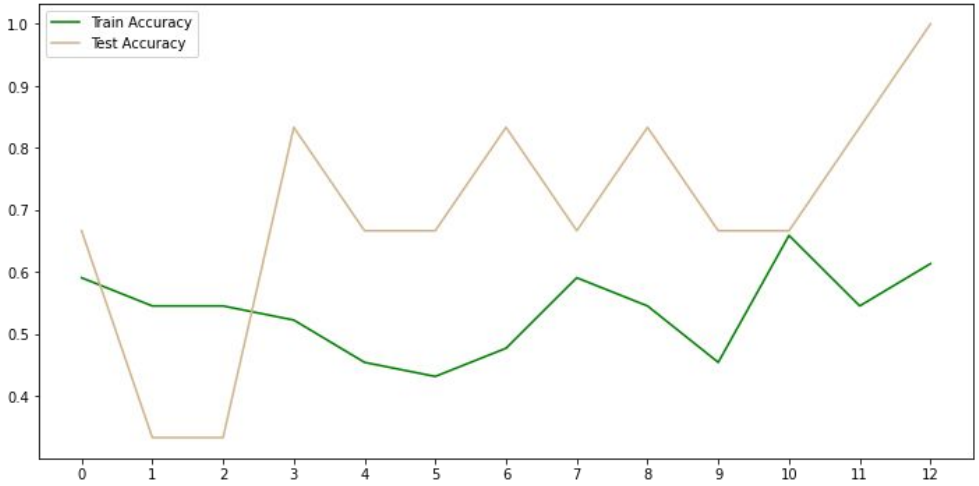
FINDINGS

5


0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
accuracy_rate
0-10
10-20
20-30
30-40
40-50
input

FINDINGS

5


Train Accuracy
Test Accuracy
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0
1
2
3
4
5
6
7
8
9
10
11
12

CONCLUSIONS

5

LoveIt!

- ✓ FUN
- ✓ USEFUL
- ✓ CHALLENGING

THANKS!

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