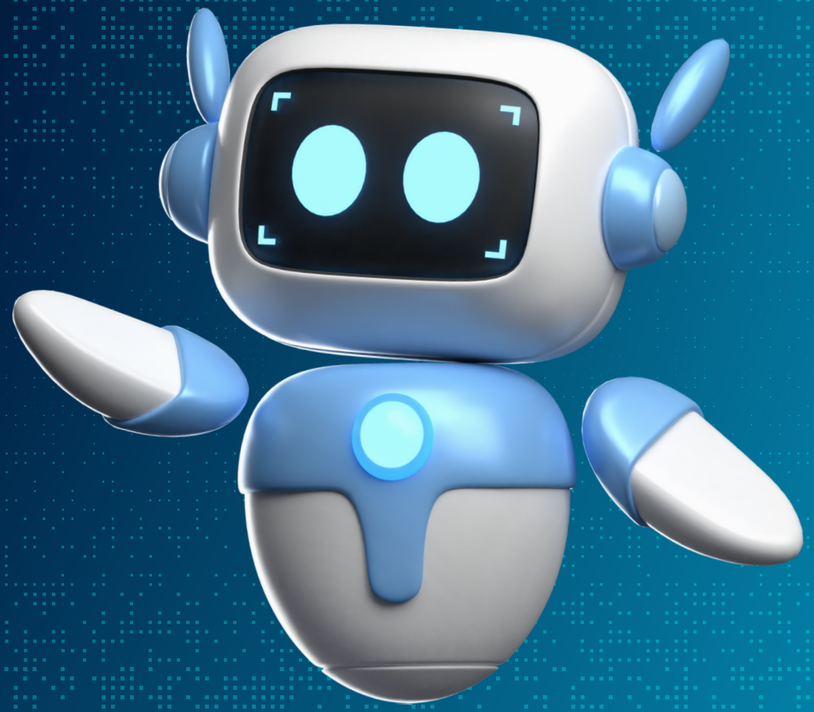
AGE ESTIMATION

Group 8



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Nguyễn Đức Hoàng
SE160868

Nguyễn Lương Hà
SE160872

CONTENTS

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   - C. Filter & resize
   - D. Group data
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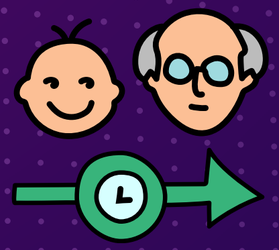
   - A. Model architecture
   - B. Results
3. Far and further

PROJECT 1
DATA MINING

A CRAWL DATA

SEARCH FOR LIST OF VIETNAMESE CELEBRITIES



FIND THEIR IMAGES AND INFOMATION (AGE)

CRAWL BY SELENIUM

A CRAWL DATA

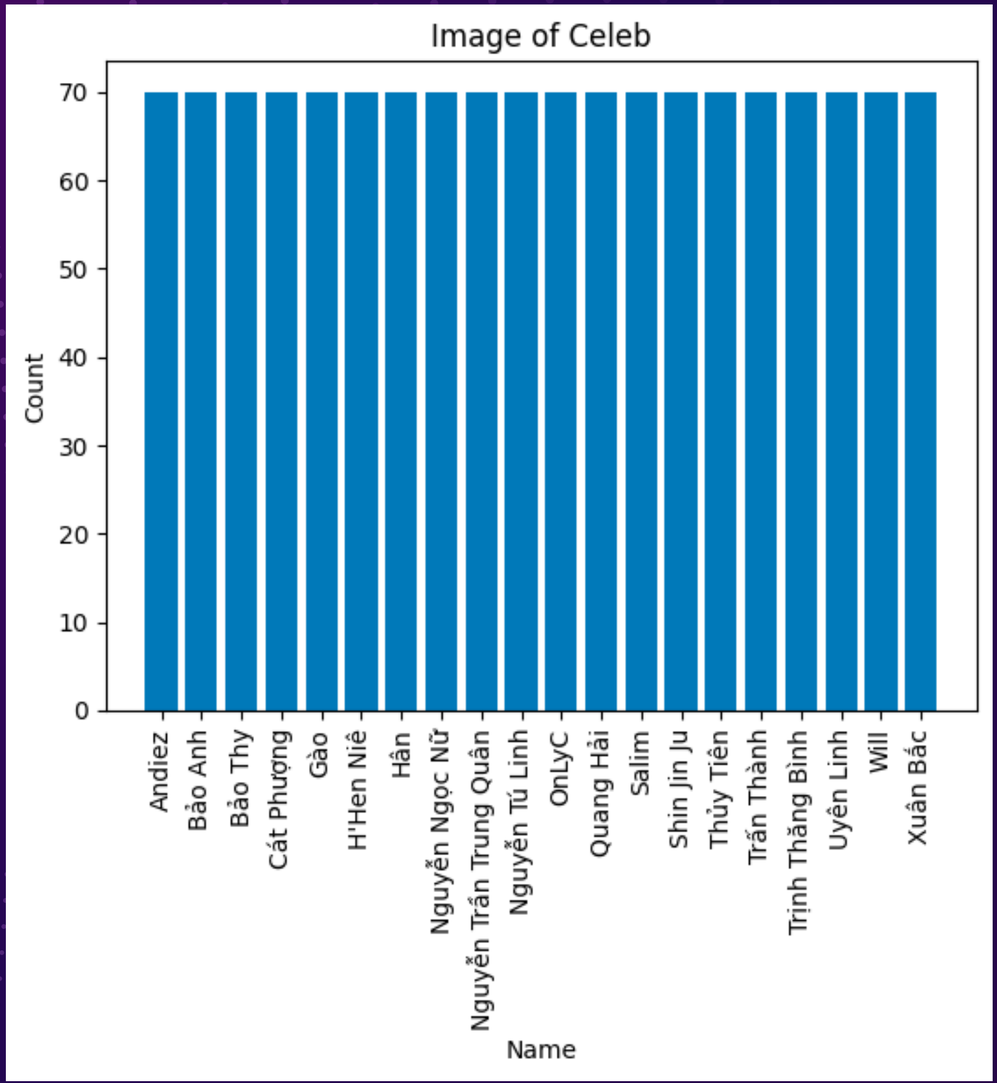
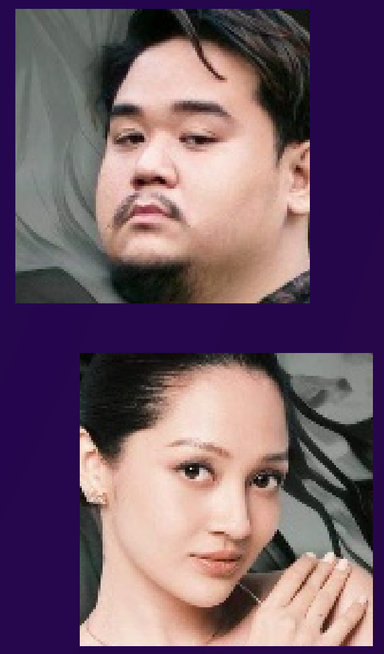


Image of Celeb
Count
0
10
20
30
40
50
60
70
Andiez
Bảo Anh
Bảo Thy
Cát Phượng
Gào
H'Hen Niê
Hân
Nguyễn Ngọc Nữ
Nguyễn Trần Trung Quân
Nguyễn Tú Linh
OnLyC
Quang Hải
Salim
Shin Jin Ju
Thủy Tiên
Trấn Thành
Trịnh Thăng Bình
Uyên Linh
Will
Xuân Bắc
Name

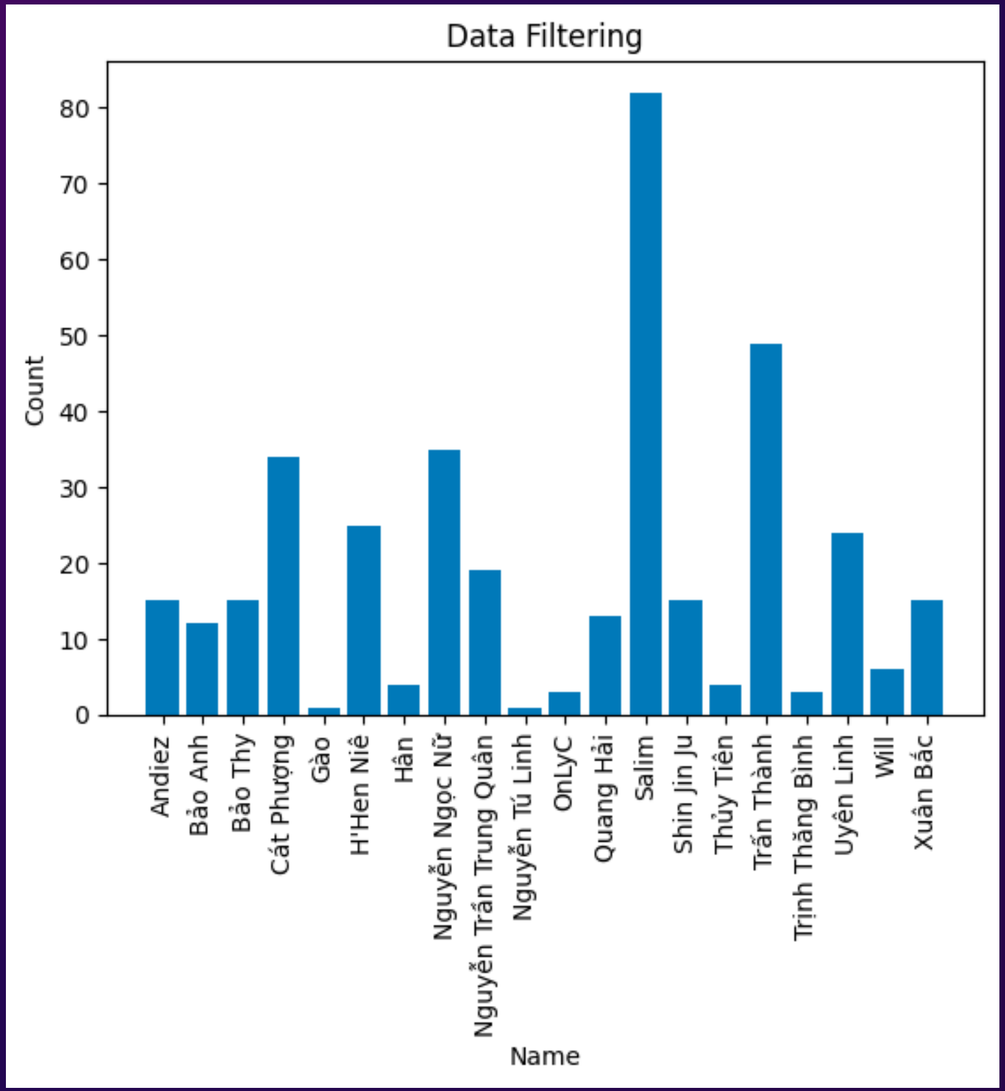
B CROP FACES

ONE IMAGE MAYBE CONTAINS MORE THAN ONE FACE



CROP IMAGES INTO MANY SEPARATE FACES.

B CROP FACES


Data Filtering
Count
0
10
20
30
40
50
60
70
80
Andiez
Bảo Anh
Bảo Thy
Cát Phượng
Gào
H'Hen Niê
Hân
Nguyễn Ngọc Nữ
Nguyễn Trần Trung Quân
Nguyễn Tú Linh
OnLyC
Quang Hải
Salim
Shin Jin Ju
Thủy Tiên
Trấn Thành
Trịnh Thăng Bình
Uyên Linh
Will
Xuân Bắc
Name

B FILTER

DELIMITATE PERSON'S FACE
UNMATCH THE GROUP AGE

GROUP

Andiez	28
Bảo Anh	31
Bảo Thy	35
Cát Phượng	53
Gào	35
H'Hen Niê	31
...	...
Mai Phương Thúy	35

25-30

31-35

36-40

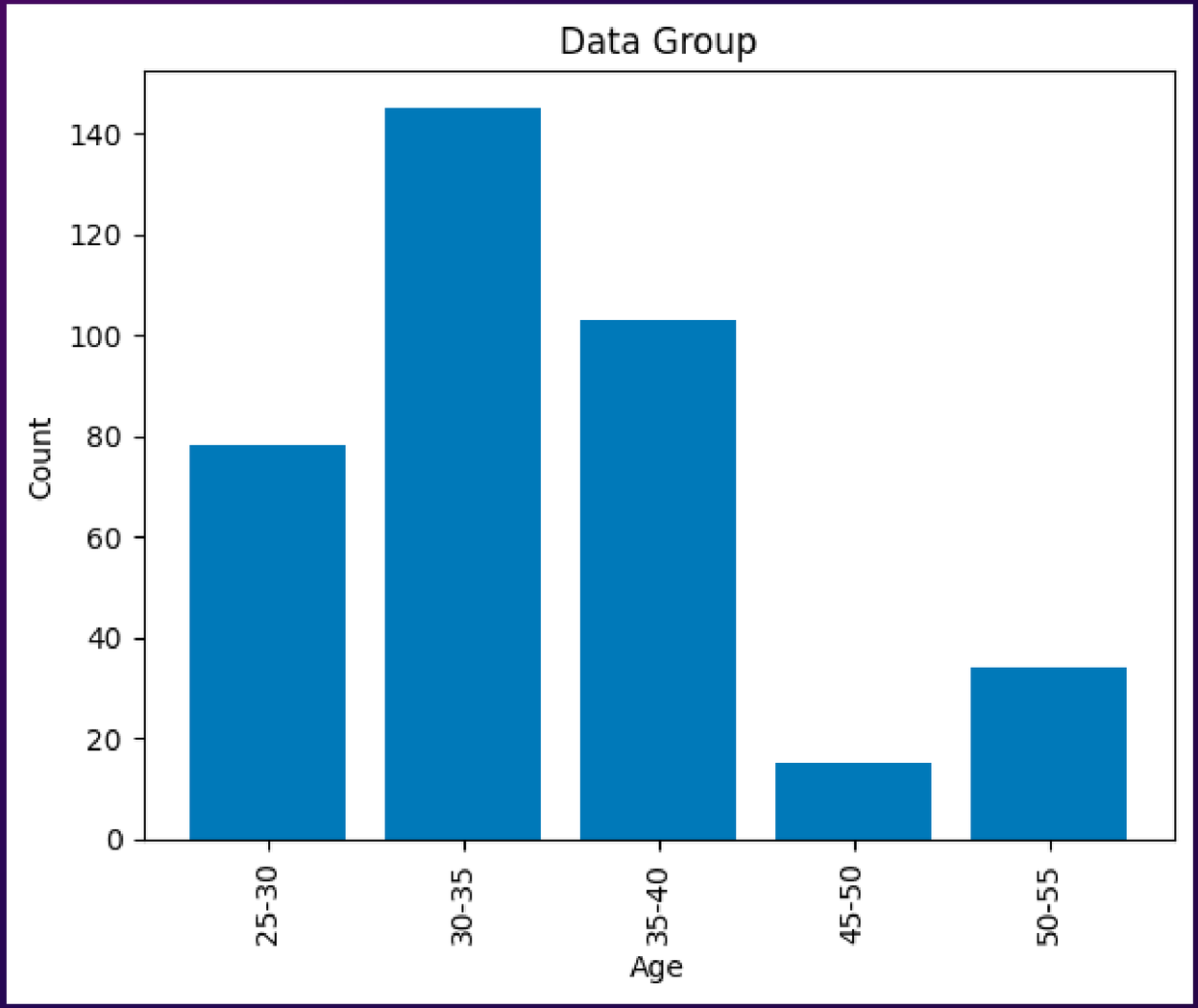
41-45

46-50

51-55

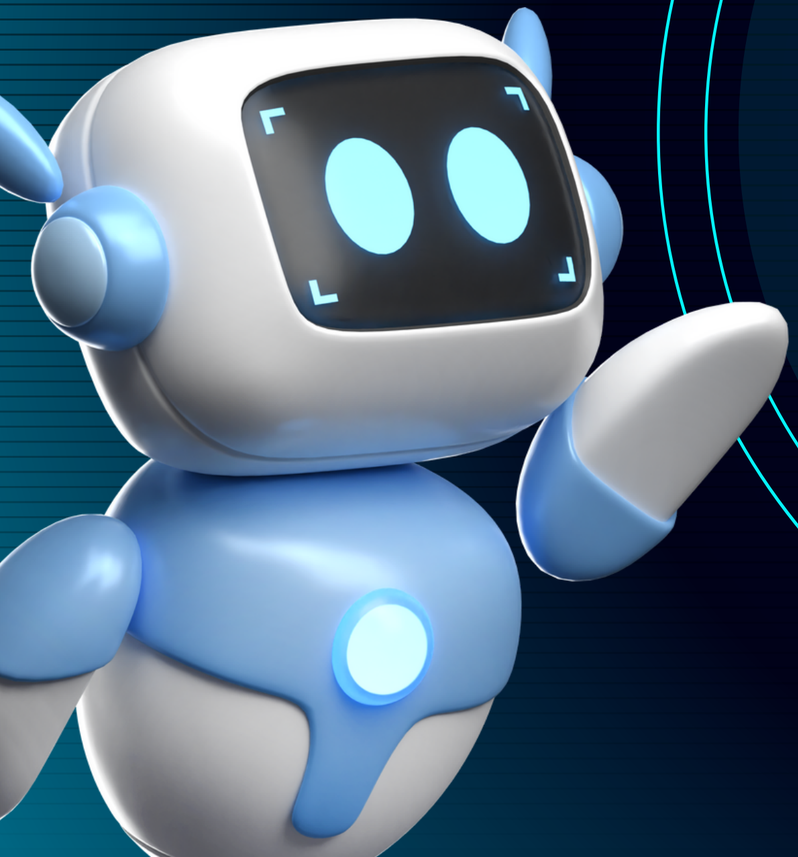
Encoding

Label	Class	Encoding
25-30	0	100000
31-35	1	010000
36-40	2	001000
41-45	3	000100
46-50	4	000010
51-55	5	000001

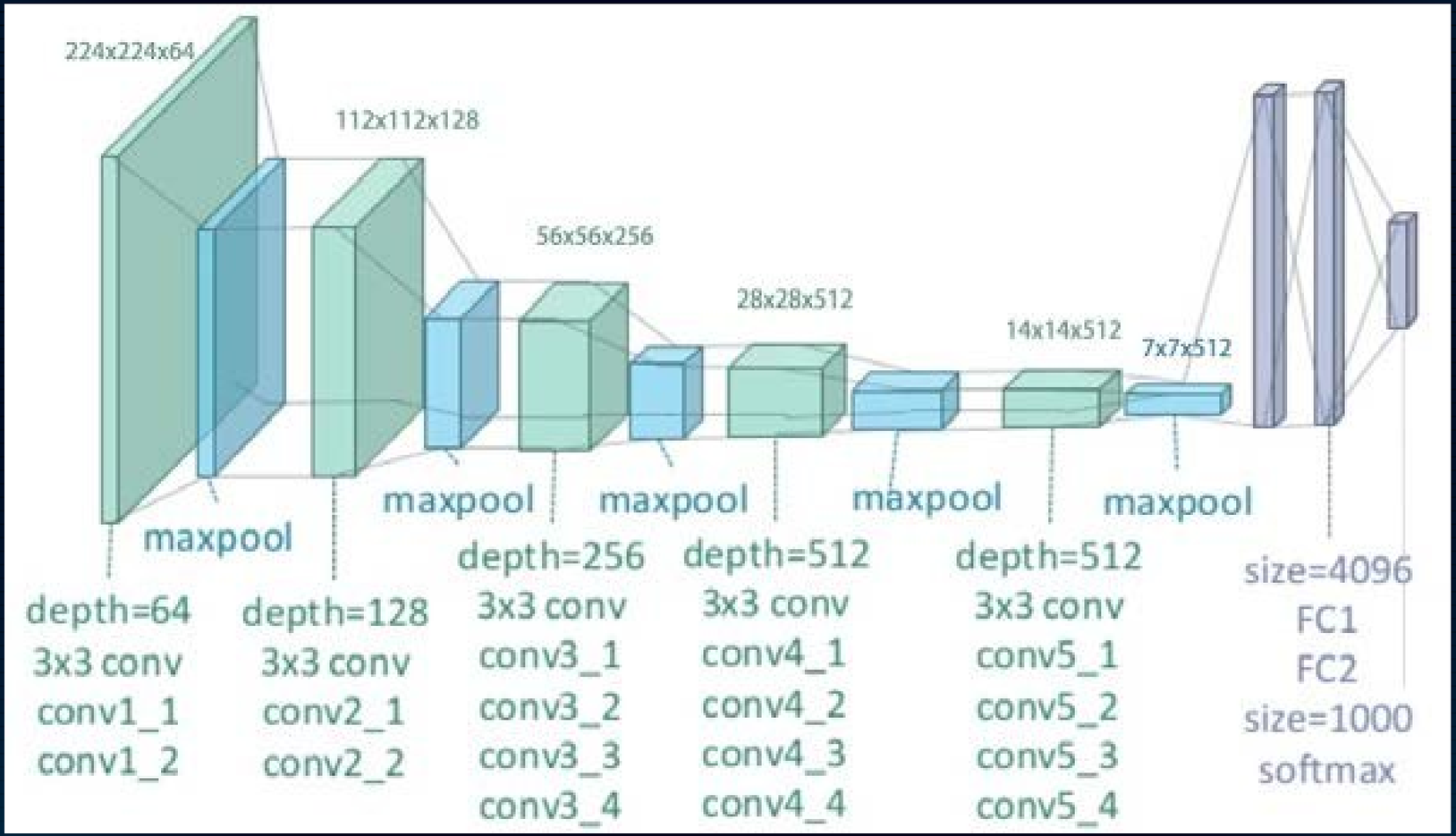

Data Group
Count
0
20
40
60
80
100
120
140
25-30
30-35
35-40
45-50
50-55
Age

A dataset of 375 faces labeled by group of age.

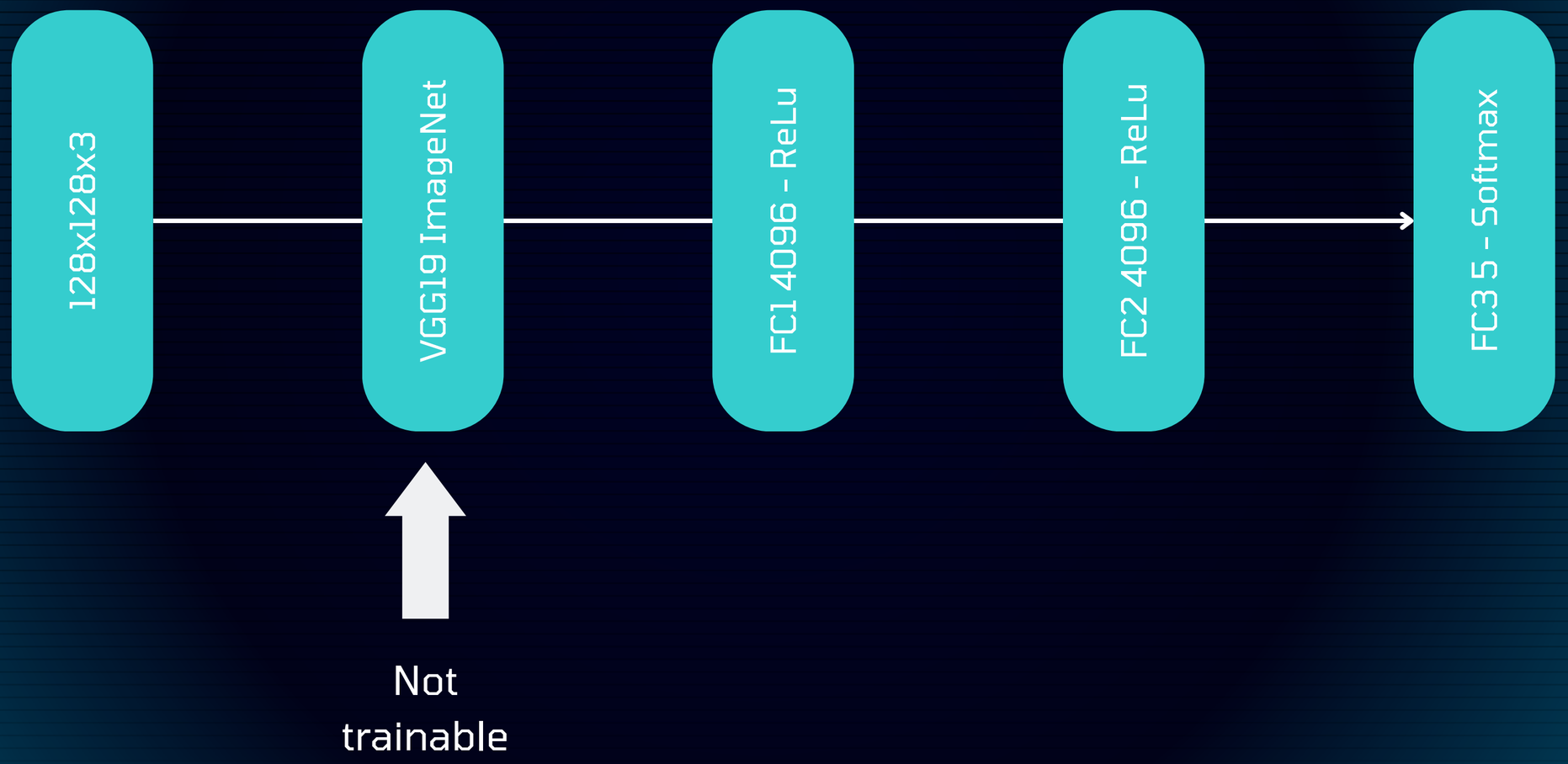
PROJECT 2
MODEL



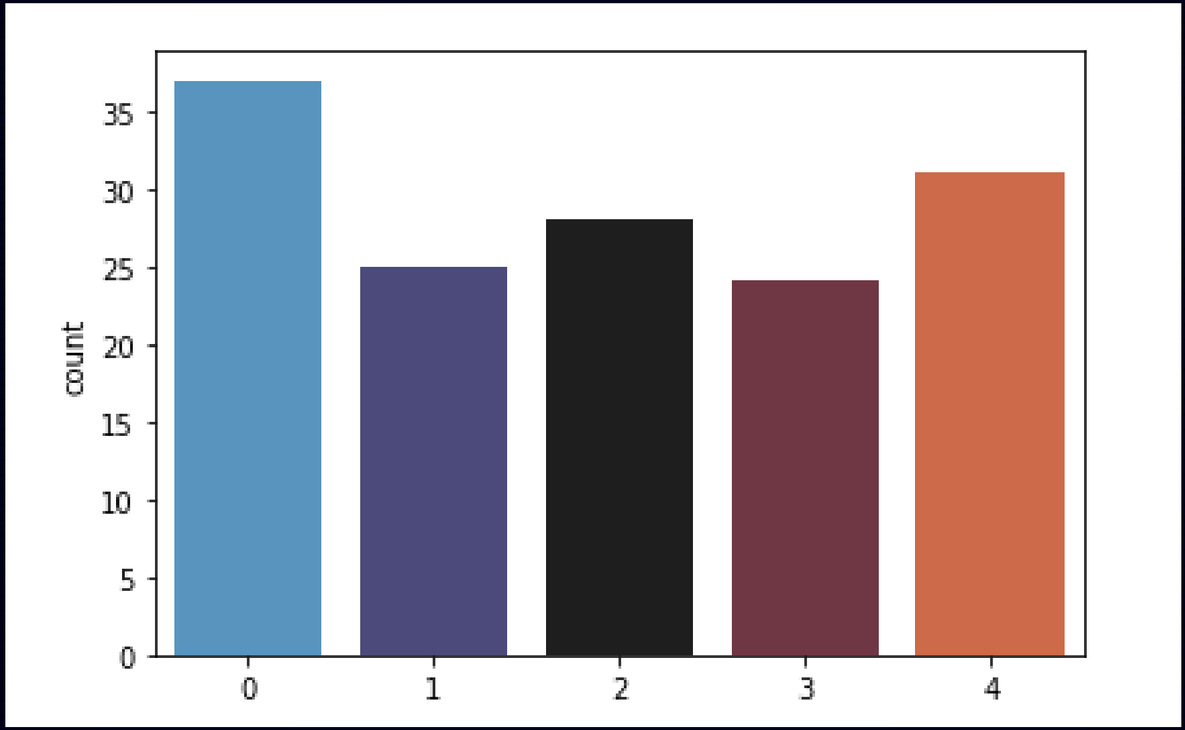
VGG19 ARCHITECTURE



TRANSFER LEARNING



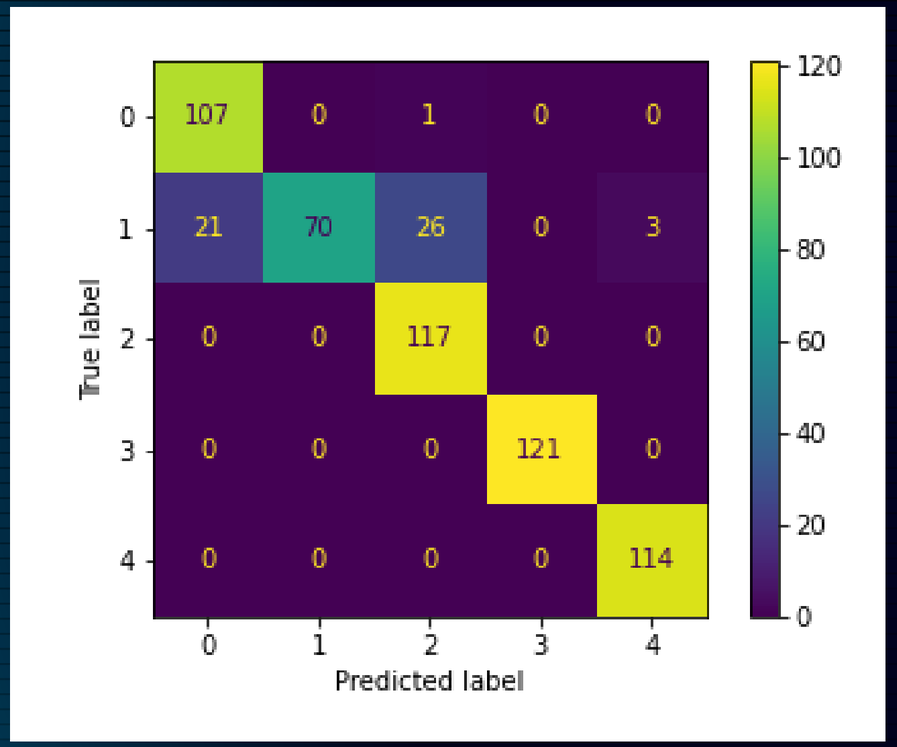
TEST DISTRIBUTION



baseline: 25.51%

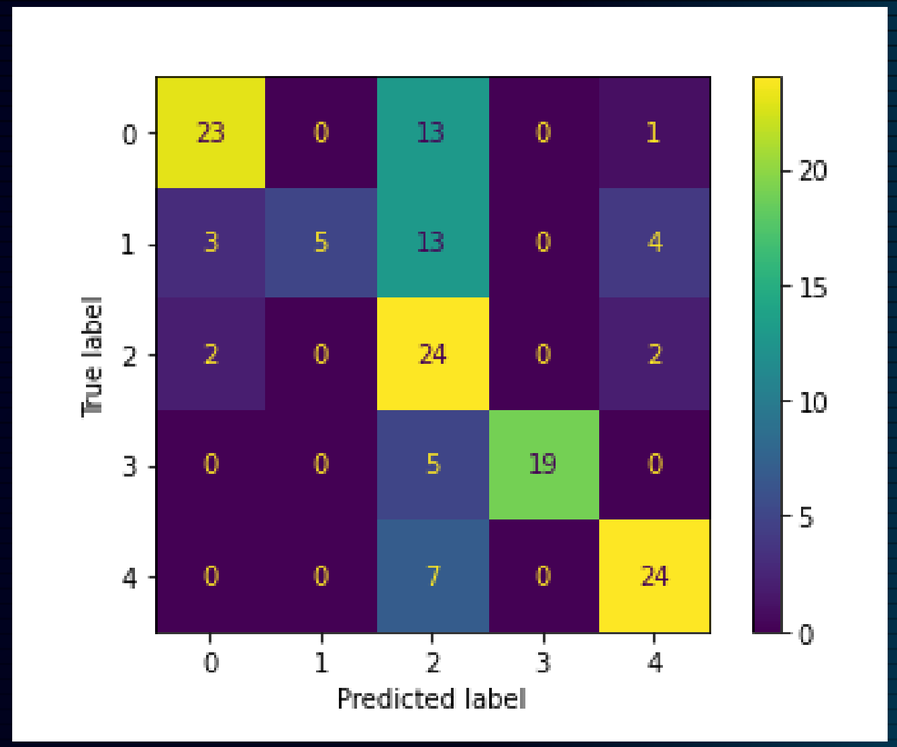
RESULT

Train confusion matrix



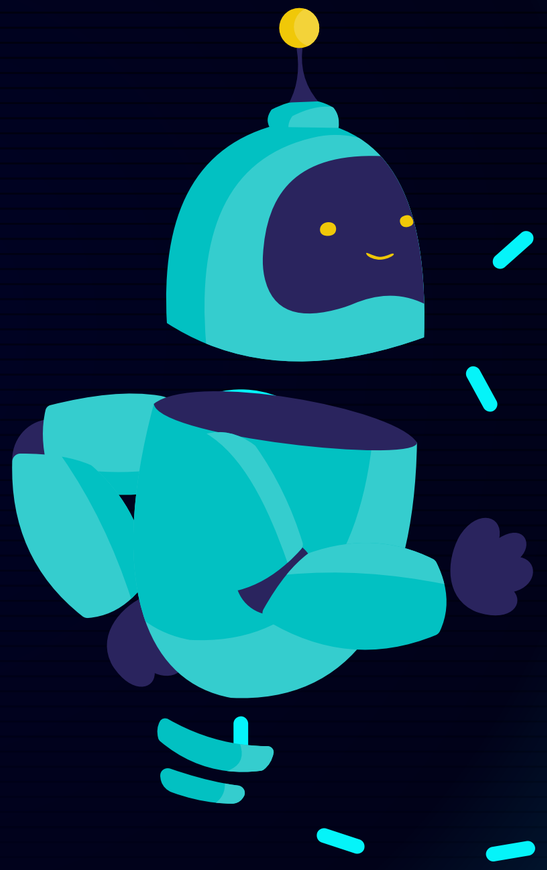
Accuracy = 88.89%
--> increase 63.38%

Test confusion matrix

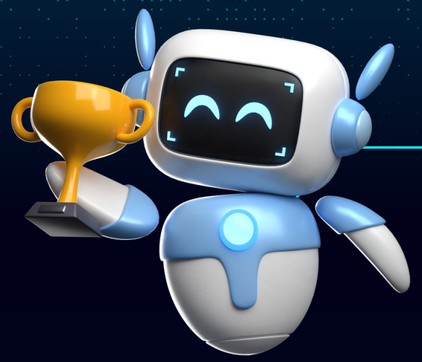


Accuracy = 77.93%
--> increase 52.42%

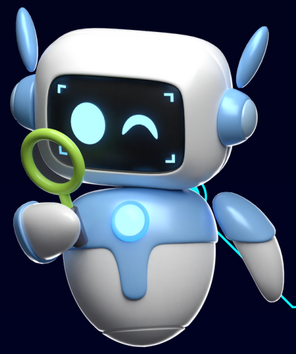
FAR AND FUTHER



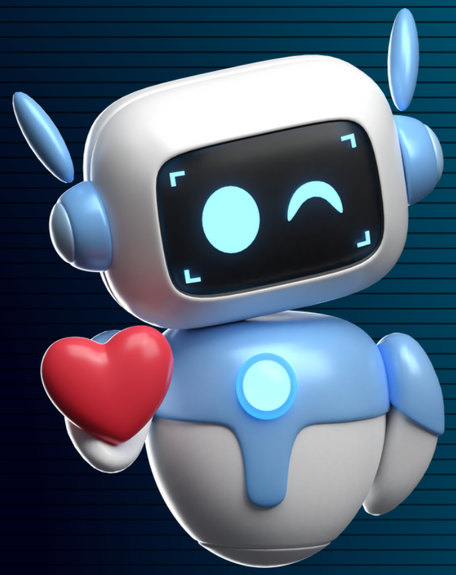
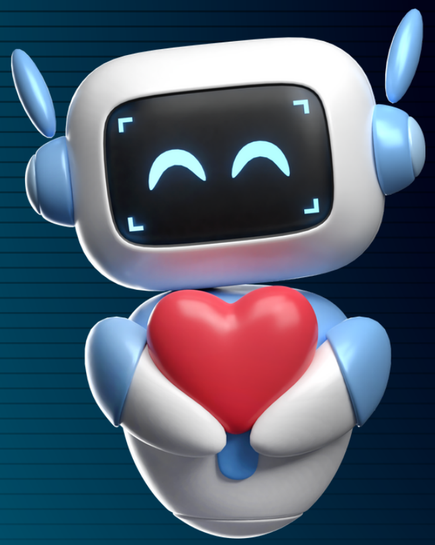
FAR AND FURTHER



ENHANCING DATASET



BOOSTING MODELS



THANK YOU FOR LISTENING