Project Development Phase
Sprint 3

Date	11 November 2022
Team ID	PNT2022TMID14295
Project Name	Virtualeye - Life Guard for Swimming Pools to Detect Active Drowning
Maximum Marks	8 Marks

```
[net]
# Testing#
batch=1
# subdivisions=1#
Training batch=64
subdivisions=16
width=608
height=608
channels=3
momentum=0.9
decay=0.0005
angle=0 saturation =
1.5
exposure = 1.5
hue=.1

learning_rate=0.01
burn_in=1000
max_batches = 500200
policy=steps
steps=400000,450000
scales=.1,.1

[convolutional]
batch_normalize=1
filters=32 size=3
stride=1
pad=1
activation=leaky

# Downsample

[convolutional]
batch_normalize=1
filters=64 size=3
stride=2
pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=32 size=1
```

```
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=64 size=3
stride=1
pad=1
activation=leaky
```

```
[shortcut]
from=-3
activation=linear#

Downsample

[convolutional]
batch_normalize=1
filters=128 size=3
stride=2
pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=64 size=1
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=128 size=3
stride=1
pad=1
activation=leaky

[shortcut]
from=-3
activation=linear

[convolutional]
batch_normalize=1
filters=64 size=1
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=128 size=3
stride=1
pad=1
activation=leaky

[shortcut]
from=-3
activation=linear

# Downsample

[convolutional]
batch_normalize=1
```

```
filters=256
size=3
stride=2
pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=128 size=1
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=256 size=3
stride=1
pad=1
activation=leaky

[shortcut]
from=-3
activation=linear

[convolutional]
batch_normalize=1
filters=128 size=1
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=256 size=3
stride=1
pad=1
activation=leaky

[shortcut]
from=-3
activation=linear

[convolutional]
batch_normalize=1
filters=128 size=1
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=256 size=3
```

stride=1
pad=1
activation=leaky

[shortcut]
from=-3
activation=linear

[convolutional]
batch_normalize=1
filters=128 size=1
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=256 size=3
stride=1
pad=1
activation=leaky

[shortcut]
from=-3
activation=linear

[convolutional]
batch_normalize=1
filters=128 size=1
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=256 size=3
stride=1
pad=1
activation=leaky

[shortcut]
from=-3
activation=linear

[convolutional]
batch_normalize=1
filters=128 size=1
stride=1
pad=1
activation=leaky

[convolutional]

```
batch_normalize=1
filters=256 size=3
stride=1
pad=1
activation=leaky

[shortcut]
from=-3
activation=linear

[convolutional]
batch_normalize=1
filters=128 size=1
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=256 size=3
stride=1
pad=1
activation=leaky

[shortcut]
from=-3
activation=linear

[convolutional]
batch_normalize=1
filters=128 size=1
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=256 size=3
stride=1
pad=1
activation=leaky

[shortcut]
from=-3
activation=linear#

Downsample

[convolutional]
batch_normalize=1
filters=512 size=3
stride=2
```

```
pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=256 size=1
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=512 size=3
stride=1
pad=1
activation=leaky

[shortcut]
from=-3
activation=linear


[convolutional]
batch_normalize=1
filters=256 size=1
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=512 size=3
stride=1
pad=1
activation=leaky

[shortcut]
from=-3
activation=linear


[convolutional]
batch_normalize=1
filters=256 size=1
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=512 size=3
stride=1
```

```
pad=1
activation=leaky

[shortcut]
from=-3
activation=linear


[convolutional]
batch_normalize=1
filters=256 size=1
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=512 size=3
stride=1
pad=1
activation=leaky

[shortcut]
from=-3
activation=linear


[convolutional]
batch_normalize=1
filters=256 size=1
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=512 size=3
stride=1
pad=1
activation=leaky

[shortcut]
from=-3
activation=linear


[convolutional]
batch_normalize=1
filters=256 size=1
stride=1
pad=1
activation=leaky

[convolutional]
```

batch_normalize=1
filters=512 size=3
stride=1
pad=1
activation=leaky

[shortcut]
from=-3
activation=linear

[convolutional]
batch_normalize=1
filters=256 size=1
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=512 size=3
stride=1
pad=1
activation=leaky

[shortcut]
from=-3
activation=linear

[convolutional]
batch_normalize=1
filters=256 size=1
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=512 size=3
stride=1
pad=1
activation=leaky

[shortcut]
from=-3
activation=linear#

Downsample

[convolutional]
batch_normalize=1
filters=1024 size=3

```
stride=2
pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=512 size=1
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=1024 size=3
stride=1
pad=1
activation=leaky

[shortcut]
from=-3
activation=linear

[convolutional]
batch_normalize=1
filters=512 size=1
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=1024 size=3
stride=1
pad=1
activation=leaky

[shortcut]
from=-3
activation=linear

[convolutional]
batch_normalize=1
filters=512 size=1
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=1024 size=3
stride=1
pad=1
```

activation=leaky

[shortcut]
from=-3
activation=linear

[convolutional]
batch_normalize=1
filters=512 size=1
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=1024 size=3
stride=1
pad=1
activation=leaky

[shortcut]
from=-3
activation=linear

######################

[convolutional]
batch_normalize=1
filters=512 size=1
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
size=3
stride=1 pad=1
filters=1024
activation=leaky

[convolutional]
batch_normalize=1
filters=512 size=1
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
size=3
stride=1 pad=1
filters=1024

activation=leaky

[convolutional]
batch_normalize=1
filters=512 size=1
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
size=3
stride=1 pad=1
filters=1024
activation=leaky

[convolutional]
size=1 stride=1
pad=1 filters=255
activation=linear

[yolo]
mask = 6,7,8
anchors = 10,13, 16,30, 33,23, 30,61, 62,45, 59,119, 116,90,
156,198, 373,326
classes=80
num=9
jitter=.3
ignore_thresh = .7
truth_thresh = 1
random=1

[route] layers
= -4

[convolutional]
batch_normalize=1
filters=256 size=1
stride=1
pad=1
activation=leaky

[upsample]
stride=2

[route]
layers = -1, 61

[convolutional]

```
batch_normalize=1
filters=256 size=1
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
size=3
stride=1
pad=1
filters=512
activation=leaky

[convolutional]
batch_normalize=1
filters=256 size=1
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
size=3
stride=1
pad=1
filters=512
activation=leaky

[convolutional]
batch_normalize=1
filters=256 size=1
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
size=3
stride=1
pad=1
filters=512
activation=leaky

[convolutional]
size=1 stride=1
pad=1 filters=255
activation=linear


[yolo]
mask = 3,4,5
```

anchors = 10,13,   16,30,   33,23,   30,61,   62,45,   59,119,   116,90,
156,198,   373,326
classes=80
num=9
jitter=.3
ignore_thresh = .7
truth_thresh = 1
random=1

[route] layers
= -4

[convolutional]
batch_normalize=1
filters=128 size=1
stride=1
pad=1
activation=leaky

[upsample]
stride=2

[route]
layers = -1, 36

[convolutional]
batch_normalize=1
filters=128 size=1
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
size=3
stride=1
pad=1
filters=256
activation=leaky

[convolutional]
batch_normalize=1
filters=128 size=1
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
size=3
stride=1

```
pad=1 filters=256
activation=leaky

[convolutional]
batch_normalize=1
filters=128 size=1
stride=1
pad=1
activation=leaky

[convolutional]
batch_normalize=1
size=3
stride=1
pad=1
filters=256
activation=leaky

[convolutional]
size=1 stride=1
pad=1 filters=255
activation=linear


[yolo]
mask = 0,1,2
anchors = 10,13,  16,30,  33,23,  30,61,  62,45,  59,119,  116,90,
156,198,  373,326
classes=80
num=9
jitter=.3
ignore_thresh = .7
truth_thresh = 1
random=1
```