

(一) Compile

選擇 CUDA10.0 的開發容器

```
git clone https://github.com/AlexeyAB/darknet.git
```

修改 Makefile 如下

```
GPU=1
```

```
CUDNN=1
```

```
make
```

(二) 檔案前處理

用自己寫的 toXML.py 將原始資料(.txt)轉成.xml

再用 Z4-xmltotxt.py 換成 yolo 吃的 xml

(三) Train

```
cd darknet/cfg/
```

```
cp yolov4-custom.cfg yolo-obj.cfg
```

```
vim yolo-obj.cfg
```

```
batch = 64
```

```
subdivisions=16
```

```
max_batches=6000
```

```
steps=4800,5400
```

```
width=608,height=608
```

```
修改 yolo 層的 classes = 3
```

```
修改 yolo 上一層 convolutional 層的 filters = 24
```

```
cd darknet/data/
```

```
vim obj.data
```

```
classes= 3
```

```
train   = data/train.txt
```

```
valid   = data/test.txt
```

```
names = data/obj.names
```

```
backup = backup/
```

```
vim obj.names
```

```
Pneumonia
```

```
GGO
```

```
LLL
```

```
put training data in data/obj/
```