



Title: README Setup YOLACT GPU

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CTI One Corporation

Table 1a. Document History

2022-09-12	Establish this document, document archive: /media/harry/easystore1/backup-2020-2-15/CTI/ 3proejcts/3-8-smart-tech/3-8-4-CTI/3-8-4-6-products/ CV100/102-algorithm-source-code-documents/102n- yolact/102n-1-readme-yolact\$	YY, HL

Table 1b. Testing and Release Approval Form

2022-09-12	Tested by YY and approved for release by HL	HL

Table 2. References

Number	Name and URL	Note
1.	YOLACT https://github.com/dbolya/yolact	Original, Pytorch Implementation
2.	YOLACT TensorFlow https://github.com/anshkumar/yolact	
3.	YOLACT TensorFlow	



	https://github.com/leohsuofnthu/Tensorflow-YOLACT	
4.	Mask R-CNN for Object Detection and Segmentation using TensorFlow 2.0 https://github.com/ahmedfgad/Mask-RCNN-TF2	



Table 3. Prerequisite

Software Prerequisite No.	Description and Version	Note
1.	Ubuntu 18.04	
2.	Anaconda version 4.7.12 or later	On Ubuntu
3.	git version 2.17.1 or later	
4.	Pretrained YOLACT model in TensorFlow SavedModel Format	
Hardware Prerequisite No.	Description and Version	
1.	NVIDIA GPU	



1. Setup The YOLACT Environment

1.1. Create the Anaconda environment;

```
$ conda create -n yolact python=3.8.13
```

1.2. Activate the Anaconda environment;

```
$ conda activate yolact
```

1.3. Install the required Python package;

```
$ conda install -c conda-forge cudatoolkit=10.2.89
```

```
$ conda install -c conda-forge cudnn=7.6.5.32
```

```
$ pip install protobuf==3.9.2
```

```
$ python -m pip install opencv-contrib-python==4.5.5.64
```

```
$ pip install pycocotools
```

```
$ pip install google
```

```
$ pip install tensorflow==2.3.0
```

```
$ pip install contextlib2
```

1.4. Clone the GitHub folder;

```
$ git clone https://github.com/anshkumar/yolact.git
```

2. Prepare a image and the model files

2.1. Copy a JPEG file to “yolact” folder as test.jpg

2.2. Create “saved_models” folder in “yolact” folder and copy the TF saved model to the “saved_models” folder

Note: TF saved model has to be prepared.

2.3. Open infer.py and modify the below line to match the TF saved model folder name

Line 5 `model = tf.saved_model.load('./saved_models/saved_model_0.17916931')`

3. Execute YOLACT

3.1. Activate the Anaconda environment;

```
$ conda activate yolact
```

3.2. Execute YOLACT program and “out.jpg” will be created as Figure 2. ;

```
$ python infer.py
```



Figure 1. Original Image.

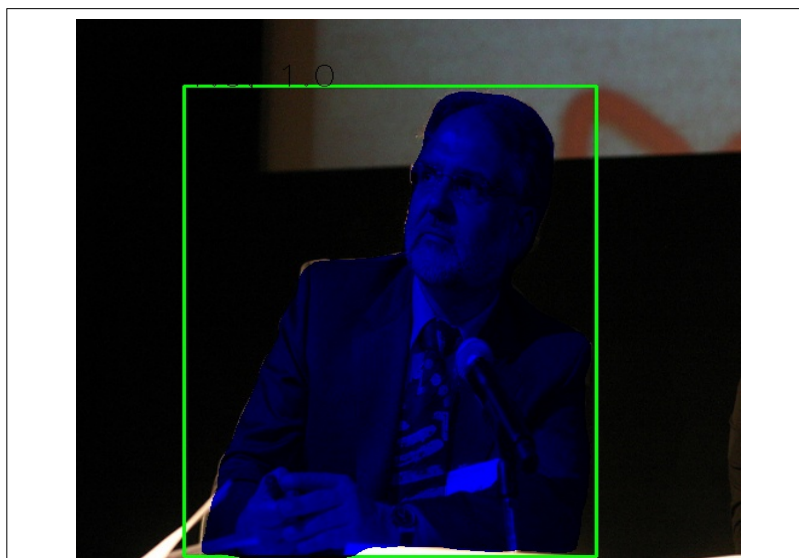




Figure 2. The Result Image

(END)