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## Person Blocker



A script to automatically “block” people in images (like the Black Mirror episode White Christmas) using Mask R-CNN pretrained on the MS COCO dataset. No GPU required!

But you can block more than just people: up to 80 different types of objects can be blocked, including giraffes and busses!

### Setup

This project relies on a handful of dependencies, use the following command to install your dependencies:

```
1 pip3 install -r requirements.txt
```

*Note:* Depending on your environment, you may need to use `sudo`. You may also want to use `virtualenv`.

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## Usage

Person Blocker is used from the command line:

```
1 python3 person_blocker.py -i images/img3.jpg -c '(128, 128, 128)' -o '
    bus' 'truck'
```

- `-i/--image`: specifies the image file.
- `-m/--model`: path to the pretrained COCO model weights (default: current directory): if not specified, it will download them automatically to the current directory if not already present (note: the weights are 258 MB!)
- `-c/--color`: color of the mask, in either quote-wrapped hexadecimal or 3-element RGB tuple format. (default: white)
- `-o/--object`: list of types of objects to block (or object IDs of specific objects). You can see the allowable choices of objects to block in `classes.py` or by using the `-names` flag. (default: person)
- `-l/--labeled`: saves a labeled image annotated with detected objects and their object ID.
- `-n/--names`: prints the class options for objects, then exits.

The script outputs two images: a static (pun intended) image `person_blocked.png` and an animated image `person_blocked.gif` like the one at the beginning of this README.

## Examples

```
1 python3 person_blocker.py -i images/img1.jpg
```



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```
1 python3 person_blocker.py -i images/img2.jpg -c '#c0392b' -o 'giraffe'
```



```
1 python3 person_blocker.py -i images/img3.jpg -c '(128, 128, 128)' -o '
  bus' 'truck'
```



Blocking specific object(s) requires 2 steps: running in inference mode to get the object IDs for each object, and then blocking those object IDs.

```
1 python3 person_blocker.py -i images/img4.jpg -l
```



```
1 python3 person_blocker.py -i images/img4.jpg -o 1
```



## Requirements

The same requirements as Mask R-CNN: \* Python 3.4+ \* TensorFlow 1.3+ \* Keras 2.0.8+ \* Numpy, skimage, scipy, Pillow, cython, h5py  
plus matplotlib and imageio

## Maintainer

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*Max's open-source projects are supported by his Patreon. If you found this project helpful, any monetary contributions to the Patreon are appreciated and will be put to good creative use.*

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## **License**

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