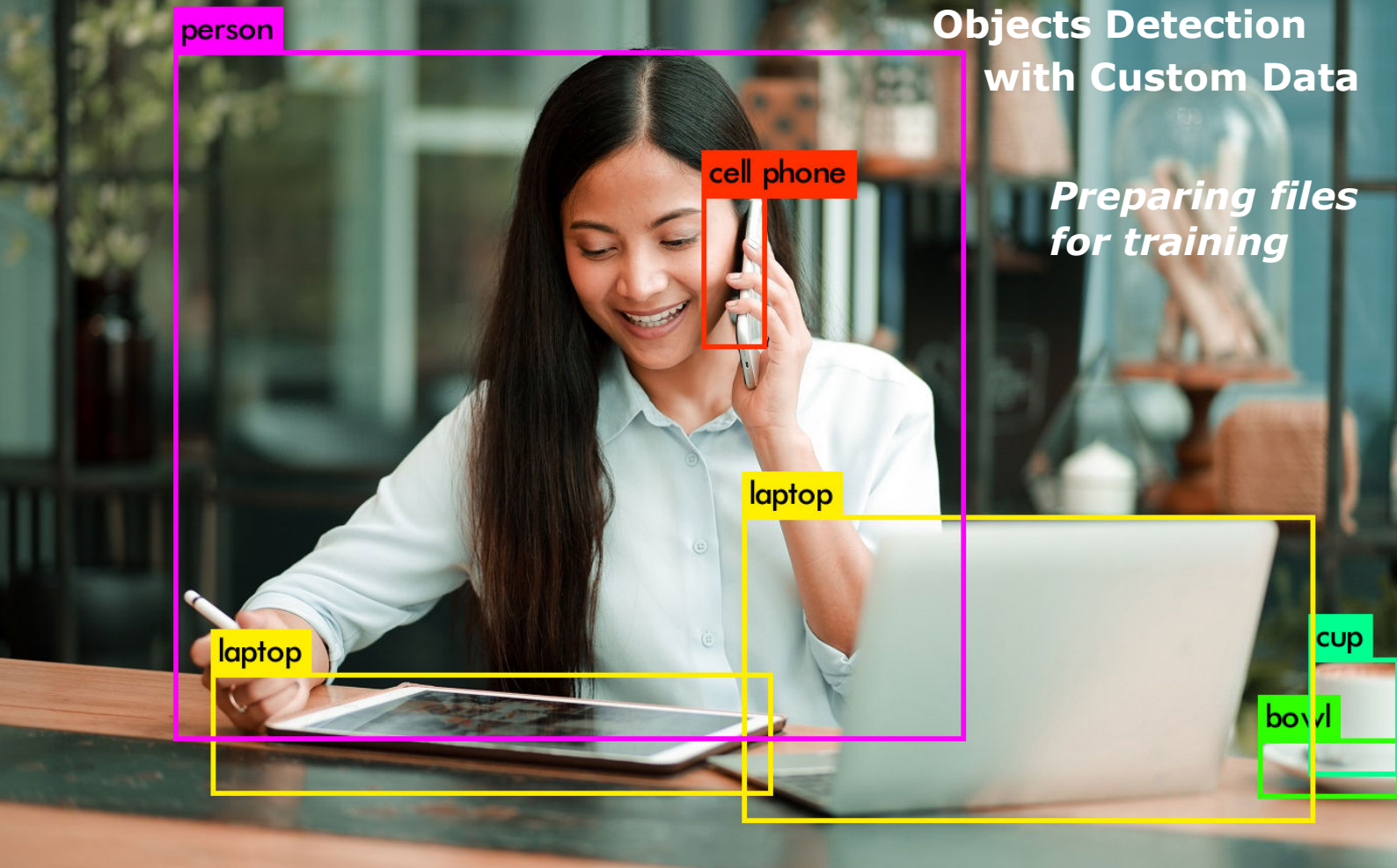


Training YOLO v3 for Objects Detection with Custom Data

Preparing files for training



Preparing files for training two datasets in Darknet framework

In order to train on two datasets from *Section-4* and *Section-5* of the course, we need to copy two *data* files (*custom_data.data* and *ts_data.data*) from these two datasets into existing *cfg* folder inside root *Darknet* directory.

In *Section-4*, dataset for *Car*, *Bicycle wheel* and *Bus* was created. In *Section-5*, dataset of *Traffic Signs* was created. For every dataset were created four files that are described below.

Car_Bicycle_wheel_Bus/

Four files

- *custom_data.data*
- *classes.names*
- *train.txt*
- *test.txt*

ts/

Four files

- *ts_data.data*
- *classes.names*
- *train.txt*
- *test.txt*

Every *data* file consists of five lines: number of classes, full path to *train.txt* file, full path to *test.txt* file, full path to *classes.names* file, and folder where trained weights will be saved.

Car_Bicycle_wheel_Bus/

custom_data.data

- *classes* = 3
- *train* = /home/my_name/**train.txt**
- *valid* = /home/my_name/**test.txt**
- *names* = /home/my_name/**classes.names**
- *backup* = backup

ts/

ts_data.data

- *classes* = 4
- *train* = /home/my_name/**train.txt**
- *valid* = /home/my_name/**test.txt**
- *names* = /home/my_name/**classes.names**
- *backup* = backup

Files *classes.names* consist of objects' names that are used for training and detection.

Car_Bicycle_wheel_Bus/

classes.names

- Car
- Bicycle wheel
- Bus

ts/

classes.names

- prohibitory
- danger
- mandatory
- other

Files *train.txt* and *test.txt* consist of full paths to appropriate images.

Car_Bicycle_wheel_Bus/

train.txt

- /home/my_name/images/image001.jpg
- ...
- /home/my_name/images/image600.jpg

test.txt

- /home/my_name/images/image601.jpg
- ...
- /home/my_name/images/image800.jpg

ts/

train.txt

- /home/my_name/ts/image001.jpg
- ...
- /home/my_name/ts/image600.jpg

test.txt

- /home/my_name/ts/image601.jpg
- ...
- /home/my_name/ts/image800.jpg

Copy-paste data files into cfg directory

Copy and paste two *data* files: *custom_data.data* and *ts_data.data* from two datasets into existing *cfg* folder inside root *Darknet* directory.

Car_Bicycle_wheel_Bus/

custom_data.data

ts/

ts_data.data

darknet/

cfg/

custom_data.data
ts_data.data