OpenCV 4 for Arch based Linux distros

Installing

- Update

```
sudo pacman -Syu
```

- Install dependecies, OpenGL extensions for GTK+ , hdf5 and vtk:

```
sudo pacman -S gtkglext hdf5 vtk
```

- Install build-essential equivalent in Arch Linux - base-devel, and pkg-config:

```
sudo pacman -S base-devel pkg-config
```

- Install OpenCV and OpenCV Samples:

```
sudo pacman -S opencv opencv-samples
```

- Check the version of OpenCV:

```
pkg-config --modversion opencv4   #example 4.2.0
```

- Locate pkgconfig and set the pkg-config path in /etc/bash.bashrc:

```
whereis pkgconfig          #mine is /usr/lib/pkgconfig

sudo echo "export
    PKG_CONFIG_PATH=$PKG_CONFIG_PATH:/usr/lib/pkgconfig" >>
    /etc/bash.bashrc
```

Only if you get permess denied:

```
#open the file:
vim /etc/bash.bashrc
#add at the end of the file:
export PKG_CONFIG_PATH=$PKG_CONFIG_PATH:/usr/lib/pkgconfig
```

```
#exit from vim
esc :wq
```

- Refresh bash.bashrc:

```
source /etc/bash.bashrc
```

- Write a config file that helps ldconfig locate the OpenCV libraries:

```
whereis opencv4           #/usr/include/opencv4

sudo echo "/usr/include/opencv4" >>
    /etc/ld.so.conf.d/opencv4.conf

sudo ldconfig -v
```

Compiling with Makefile

- In the same directory of the .cpp create a file called Makefile with the following code:

```
CFLAGS = 'pkg-config --cflags opencv4'
LIBS = 'pkg-config --libs opencv4'

% : %.cpp
    g++ $(CFLAGS) $(LIBS) -o $@ $<
```

- To compile:

```
make program-name     #example for main.cpp -> make main
```

- To run the program:

```
./program-name
```

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