

算法/slam第一次作业

任务一

已安装linux双系统

Ubuntu20.04

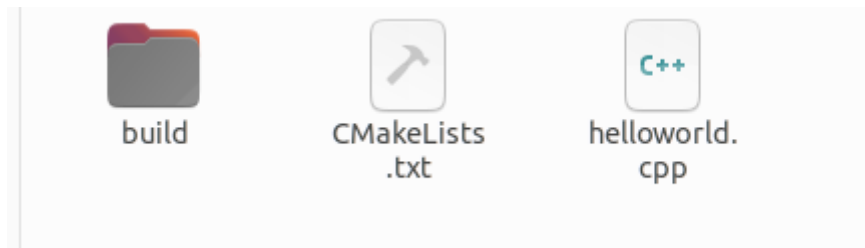
任务二 了解Linux文件系统

/ 根目录

/ 下树结构

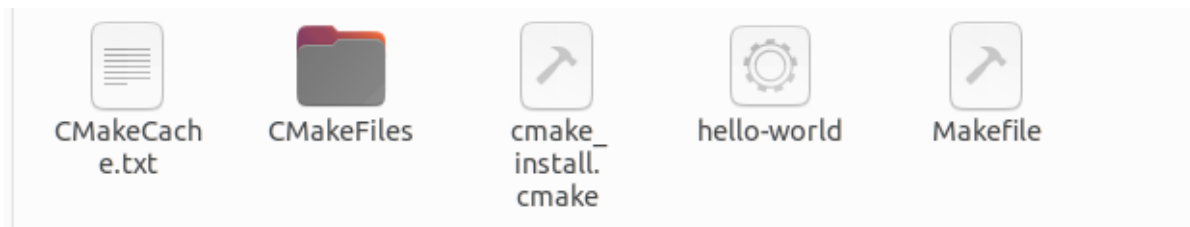
任务三 Linux命令

最常用的命令位于 /bin or /user/bin 目录下



mkdir touch

任务四 CMake简单实践

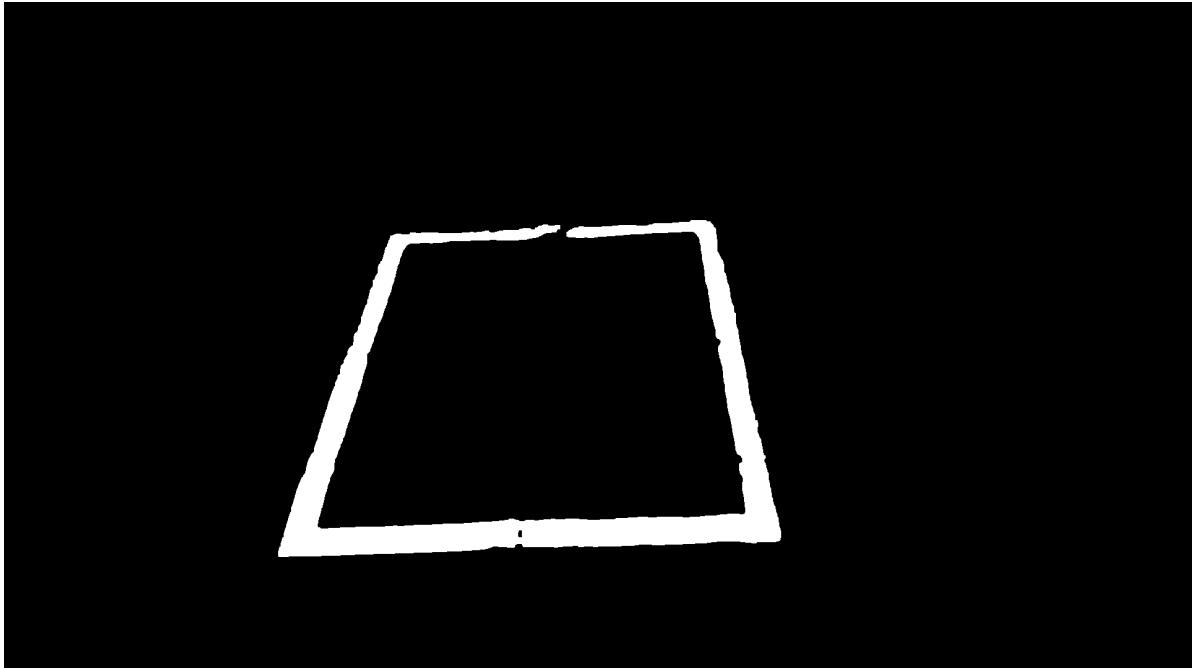


```
zero@zero: ~/vscode/src/build
-- The C compiler identification is GNU 9.4.0
-- The CXX compiler identification is GNU 9.4.0
-- Check for working C compiler: /usr/bin/cc
-- Check for working C compiler: /usr/bin/cc -- works
-- Detecting C compiler ABI info
-- Detecting C compiler ABI info - done
-- Detecting C compile features
-- Detecting C compile features - done
-- Check for working CXX compiler: /usr/bin/c++
-- Check for working CXX compiler: /usr/bin/c++ -- works
-- Detecting CXX compiler ABI info
-- Detecting CXX compiler ABI info - done
-- Detecting CXX compile features
-- Detecting CXX compile features - done
-- Configuring done
-- Generating done
-- Build files have been written to: /home/zero/vscode/src/build
zero@zero:~/vscode/src/build$ ls
CMakeCache.txt  CMakeFiles  cmake_install.cmake  Makefile
zero@zero:~/vscode/src/build$ make
Scanning dependencies of target hello-world
[ 50%] Building CXX object CMakeFiles/hello-world.dir/helloworld.cpp.o
[100%] Linking CXX executable hello-world
[100%] Built target hello-world
zero@zero:~/vscode/src/build$ ls
CMakeCache.txt  CMakeFiles  cmake_install.cmake  hello-world  Makefile
zero@zero:~/vscode/src/build$ ./hello-world
hello,world!
zero@zero:~/vscode/src/build$
```

任务五 编译安装OpenCV

配置OpenCV 4.2.0

任务六 CMake实践



报错及其处理

1.opencv4头文件问题

【opencv4】——fatal error: opencv2/opencv.hpp: No such file or directory #include <opencv2/opencv.hpp>

经查看，文件真实路径为

```
1 | /usr/include/opencv4/opencv2/opencv.hpp
```

解决方案：将opencv2 cp 一份到 include文件夹中

```
zero@zero:~/opencv_t/segment/build$ ./segment
Original Image Size: [1920 x 1080]
terminate called after throwing an instance of 'cv::Exception'
  what():  OpenCV(4.8.0-dev) /home/zero/opencv_build/opencv/modules/core/src/alloc.cpp:73: error: (-4:Insufficient memory) Failed to allocate 137593004379936 bytes in function 'OutOfMemoryError'

已放弃 (核心已转储)
zero@zero:~/opencv_t/segment/build$ 
zero@zero:~/下载/segment/build$ make
Scanning dependencies of target segment
[ 33%] Building CXX object CMakeFiles/segment.dir/src/main.cpp.o
/home/zero/下载/segment/src/main.cpp:6:10: fatal error: opencv2/opencv.hpp: 没有那个文件或目录
   6 | #include "opencv2/opencv.hpp"
     |          ^~~~~~
compilation terminated.
make[2]: *** [CMakeFiles/segment.dir/build.make:63: CMakeFiles/segment.dir/src/main.cpp.o] 错误 1
make[1]: *** [CMakeFiles/Makefile2:76: CMakeFiles/segment.dir/all] 错误 2
make: *** [Makefile:84: all] 错误 2
zero@zero:~/下载/segment/build$
```

2.opencv版本冲突问题

因为本机装载了两个版本的opencv，文件相互链接，导致库函数调用出错，出现疑似内存泄漏的问题

解决方案：重装opencv 现用版本4.2.0

```
zero@zero:~/opencv_t/segment/build$ ./segment
Original Image Size: [1920 x 1080]
terminate called after throwing an instance of 'cv::Exception'
  what():  OpenCV(4.8.0-dev) /home/zero/opencv_build/opencv/modules/core/src/alloc.cpp:73: error: (-4:Insufficient memory) Failed to allocate 137593004379936 bytes in function 'OutOfMemoryError'

已放弃 (核心已转储)
zero@zero:~/opencv_t/segment/build$
```

3.图片导入路径出错，无法载入图片

源文件路径与本机图片所在路径不同，导致图片无法载入，进而报错

解决方法：进入main.cpp中，修改读取图片的路径即可