开源软件供应链点亮计划—暑期2020

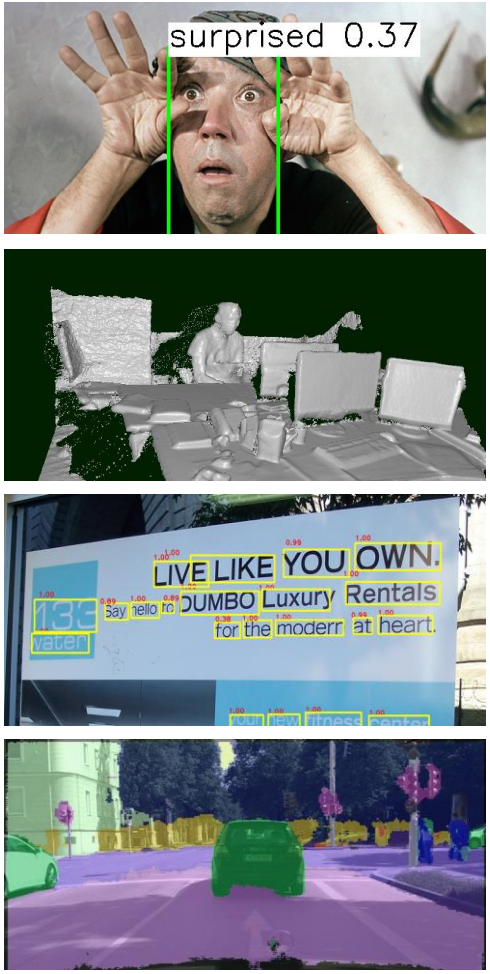
OpenCV跨平台计算机视觉库

OpenCV中国团队

主办单位： ISCAS 中国科学院软件研究所 Institute of Software Chinese Academy of Sciences openEuler

OpenCV 是 ...

- 最受欢迎的计算机视觉库之一， http://opencv.org
- 很成熟 (**1999 – present**)
- 研究或商业使用均为免费 (BSD协议)
  （即将更换使用Apache 2.0）
- C/C++语言实现；支持Python, Java, Javascript
- 较大但模块化：一百多万行代码，70多个模块
- SourceForge上两千多万次下载，github
  http://github/opencv上每周1万次下载
- 周边生态丰富：有大型社区，很多相关书籍，在线课程等
- 仍在活跃开发：自2012起已有超过1万多个patch
  （平均每天多于5个）
- 非常稳定和高效



开发与贡献

美国湾区

intel

Google

Google Summer of Code

Open Source Vision Foundation (OSVF); OpenCV.org

中国深圳

OpenCV.org.cn (2019年9月成立)

AIRS SHENZHEN INSTITUTE of ARTIFICIAL INTELLIGENCE AND ROBOTICS for SOCIETY 深圳市人工智能与机器人研究院

OPEN AI LAB

俄罗斯
下诺夫哥罗德

intel

Core OpenCV team @ Intel Russia

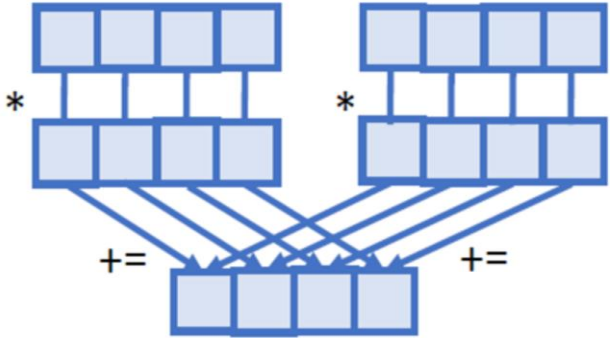
OpenVINO

XPERIENCE.AI

社区
通过github每天提交2-3个patch

项目ID: 2020095

Write a tutorial about using universal intrinsics



Expected outcomes:

A tutorial and source code that will explain how to use the universal intrinsics.

Difficulty: Medium

项目ID: 2020096

Create NuGet package for OpenCV and OpenCV contrib

Expected outcomes:

- Scripts to automatically generate 2 nuget packages.
- Publish OpenCV nuget packages at NuGet Gallery.

Difficulty: Medium

项目ID: 2020097

Support Audio IO module

Expected outcomes：

Support audio input/output module for Windows or MacOS family operating system.

Difficulty: Medium

项目ID: 2020098

Implementation of QR-codes decoder and encoder

Expected outcomes:

- Integration of decoding functionality of QR codes.
- Create encoding functionality and API with regression and performance tests.

Difficulty: Medium

项目ID: 2020099

Data augmentation

Expected outcomes:

- Create a new OpenCV module for data transformation.
- Write tutorials on Python wrappers of the functionalities.

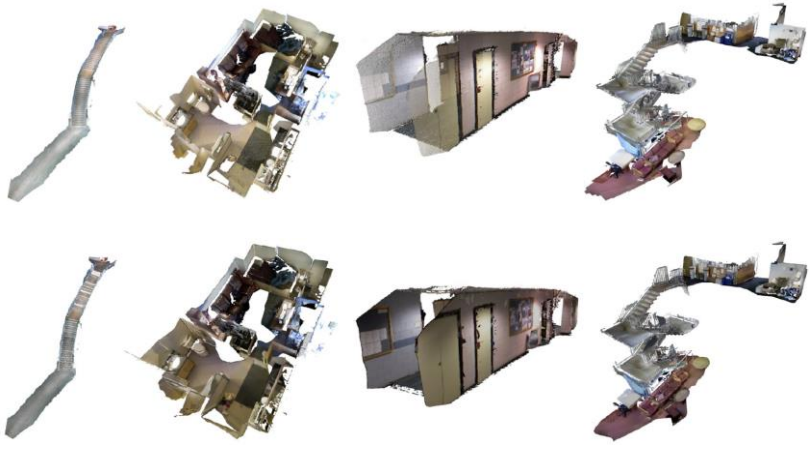
Difficulty: Hard

项目ID: 2020194

Incremental and Batch Simplification of Point Clouds

Expected outcomes:

- Implement batch simplification
- Implement incremental.
- Implement texture mapping. (optional)
- Extend simplification beyond planes to consider cylinders and sphere fitting. (optional)



T. Whelana et al., Incremental and Batch Planar Simplification of Dense Point Cloud Maps

Difficulty: Medium

问答环节

OpenCV China微信公众号：OpenCVTeam
OpenCV China网站：www.opencv.org.cn
联系我们：admin@opencv.org.cn

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