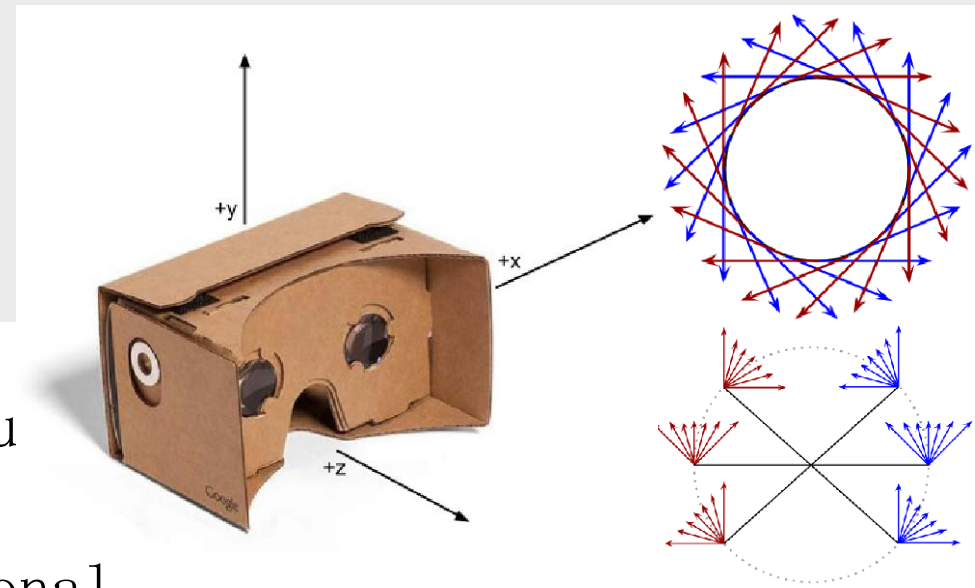


Omni-Directional Stereo for 360° 3D Virtual Reality Video

Goal: Implement a video renderer for 360° 3D virtual reality

Description: video using a cameras ring with omni-directional

stereo. Recently, Google and Facebook presented software and hardware (Google Jump and Facebook 360) to capture and render panoramic (360°) and stereoscopic (3D) videos that can be viewed using virtual reality viewers such as the Oculus Rift or Google Cardboard. The underlying technology is based on a ring of synchronized cameras and 3D computer vision methods, including stereo, optical flow, etc. This project aims to build a video renderer that takes images from a ring of calibrated and synchronized cameras and outputs a 360° 3D video that can be viewed using e.g. Google Cardboard on Youtube VR.



Requirements / Tools:

Required: Python or Matlab or C++

Supervisor:

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