

Analysis of different limitations in Computer Vision

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What obstacles may we encounter in computer vision? This question has both mathematical and IT sides. Overcoming these obstacles has a high importance due to the role of computer vision in today's technology (eg. autonomous cars).

The main idea is to reconstruct the three dimensional space from two or more two dimensional images. One mathematical solution to this problem was proposed by Hartley and Sturm [1]. This presentation, based on an open-source software that uses the mentioned mathematical solution, shows some obstacles we may encounter in the implementation.

What is the connection between the number of images used for reconstruction and the accuracy of the result? How this accuracy depends on the background of the image? These are some questions the presentation tries to answer.

References

- [1] R. I. Hartley and P. Sturm, *Triangulation*, Computer Vision and Image Understanding: CVIU, vol. 68, no. 2, pp 146-157, 1997