Training and Deploying Computer Vision Models for Indoor Localisation

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Abstract

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1 Introduction

Localisation is at the core of numerous localisation-based applications (LBAs). While digital solutions for outdoor positioning like GPS are wide-spread, similar systems in indoor spaces are rare and not unified in their approach. Most current solutions depend on additionally installed hardware in the indoor space, which is costly to install and maintain, inconvenient in the usage and often raises data privacy concerns. Therefore, this projects explores the possibilities of using machine learning (computer vision) to build a performant offline indoor positioning system.

2 Background

3 Methodology

A variety of models were trained and evaluated for the task of indoor localistion. Amogst those were Resnet [1], ...

4 Results

5 Discussion

6 Conclusion

References

[1] Kaiming He, Xiangyu Zhang, Shaoqing Ren, and Jian Sun. Deep residual learning for image recognition. *CoRR*, abs/1512.03385, 2015.