IMAGE SUPER-RESOLUTION

Assignment

Image super-resolution (SR) techniques reconstruct a higher-resolution image or sequence from the observed lower-resolution images. Although it looks solved and easy in the CSI movies, it is an ill-posed problem, with plenty of open questions. As super resolution is normally only a pre-processing step, it is crucial to have it fast.

Activities

In this project, you will get familiar with state-of-the-art resolution enhancement techniques and implement the most promising ones for our application.

Internship overview

- Master Student
- Internship
- Mathware
- Location: Eindhoven

Technologies

- Computer vision
- Deblurring
- Superresolution
- Image denoising
- Deep Learning

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Context

Along with comparing different techniques (based on interpolation or Deep Learning techniques, i.e. GANs) the important questions are:

• How generalizable the methods are? What happens if they are applied to the kind of images not seen in training?

• How to approach cases with no high resolution images available?

• How to deal with low amount of ground truth available?

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■ Working on innovative technology
■ Challenging, dynamic and varied work
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■ Great carreer opportunities
■ Contributing to a safe, healthy and sustainable society

Get in touch!
Would you like to know more about this student assignment?

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