Masterarbeit

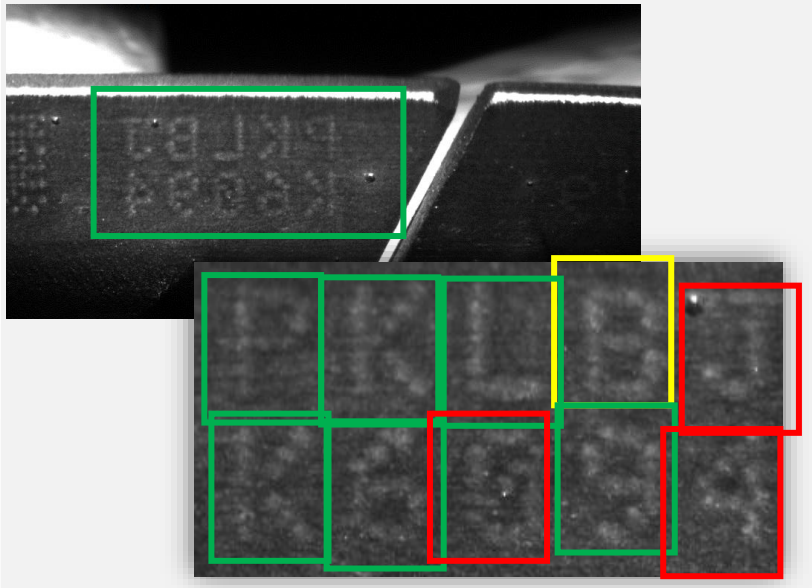
- ab sofort -

Automated assignment of measurement data using optical character recognition (OCR)

As part of a research project, an existing measurement setup is expanded, so that serial numbers of the measurement objects can be extracted using OCR (Optical Character Recognition). The aim of this thesis is to develop, evaluate and validate a robust method for automating the assignment of measurement data.

In the first step, the optimum illumination configuration needs to be determined. Experimental investigations should clarify under which illumination the information content of the image data is maximized.
A literature research should yield OCR models that can be used on the available data. The implementation is to be integrated in the existing Python data processing algorithm.
For validation, the camera and lighting configurations are mounted on the existing setup to generate realistic measurement data.

Keywords: computer vision, optical character recognition, machine learning, industrial imaging



Your tasks:

- Literature research on current approaches/publications
- Experimental investigation of the lighting configuration
- Development of a data processing structure
- Validation of the results using reference measurements
- Evaluation and documentation of the results

Your profile:

- Experience with Python
- Interest in industrial imaging
- Ability to work independently

We offer:

- Excellent academic support
- Motivated team
- Flexible working hours
- Exciting research projects

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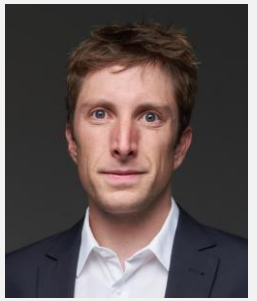

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