Bachelor’s or Master’s Thesis
Focus Stacking Optimization

In macro photography, sharp images can be captured, but these images have a shallow depth of field. To capture images with a high sharpness and a sufficient depth of field, focus stacking can be used. For this, images are captured in different focal planes and fused together to create a sharp image. In this thesis the optimal values for the image acquisition parameters should be determined to improve the focus stacking.

Tasks:
• Researching the state of the art
• Experimental design
• Performing experiments
• Data analysis

Education, experience and skills:
• High motivation and ability to work independently
• Experience with Python
• Experience with image processing
• Thesis can be written in English or German