Are you the enthusiastic, talented graduate intern we’re looking for?

Can you transform images into accurate and repeatable 3D engineering measurements? Join the Grooming and Beauty Development team to develop the next generation of an image-based measurement system. Starting from an existing 2D measurement tool, you will investigate how stereo vision, multi-camera imaging, structured light or another suitable approach can reconstruct and quantify complex three-dimensional structures.

Your Responsibilities

As an intern, you will:

- Take ownership of the assignment, including planning, concept development, experimentation and communication of results.
- Review state-of-the-art 3D imaging and reconstruction techniques.
- Evaluate concepts for extending an existing 2D measurement tool to 3D.
- Design and build an experimental imaging setup.
- Develop camera calibration and validation procedures.
- Process image data and implement reconstruction algorithms.
- Extract quantitative geometric parameters from the reconstructed data.
- Assess spatial resolution, accuracy, measurement uncertainty and repeatability.
- Validate the measurement system against known reference geometries.

Key Deliverables

- State-of-the-art review and selection of promising 3D measurement concepts.
- System concept and architecture for a 3D measurement solution.
- Experimental setup and validated measurement methodology.
- Calibration, reconstruction and parameter-extraction algorithms.
- Quantitative assessment of accuracy, uncertainty and repeatability.
- Recommendations and roadmap towards practical implementation.
- Final report and presentation to stakeholders.

Your background

We prefer students who can start immediately and commit to at least six months, although exact dates are flexible. To succeed in this role, you should be pursuing a master’s degree in applied physics, optical engineering, imaging and vision, computer vision, measurement science, robotics, or a similar field. Additionally, you

should bring:

- Fluency in English (written and verbal).
- Interest in optics, imaging, computer vision, data analysis and experimental physics.
- Experience with Python, MATLAB, OpenCV, image processing or optical measurement techniques is a plus.
- Curiosity to explore and compare alternative technical concepts.
- Structured, hands-on and result-driven approach.

PHILIPS

You Will Be Part Of

In Drachten you'll find two of the largest innovation sites of Philips globally. With colleagues from over 35 different nationalities, it is an inspiring international environment for a young talented intern. At Philips Drachten, consumer-product developers work together to create innovative solutions to real-world problems.

Our Offer

Philips Drachten could be the start of a promising career, with opportunities to develop yourself locally or internationally in different parts of our company. At Philips, you contribute to activities that have a positive impact on people around the world. You will also:

- Strengthen your capabilities and knowledge.
- Be guided by a team of experienced professionals.
- Receive an internship allowance.
- Expand your professional network.

If you recognize yourself in this profile and would like to take on this challenge, we invite you to apply!

For questions about the internship, please contact:

Arno Kroezen Function Development Engineer