

Industrial internship Reliability testing and hardware design

We are a young and dynamic startup founded in 2020 by experts who have developed a game-changing photonic technology in the laboratories of IBM Research in Zurich.

We have developed a unique technology to bring a material with an extremely strong Pockels coefficient into a scalable silicon photonics platform. Having this physical effect available in integrated photonic circuits has been a scientific and technological breakthrough, which enables the realization of advanced photonic structures and completely new applications, e.g. for photonic AI networks and quantum computing.

At Lumiphase, we are bringing this new technology to market, while at the same time developing new scientific and technological concepts. The internship project is placed at the heart of our R&D activities and will ensure that our groundbreaking semiconductor chips can be tested to their full performance potential with appropriate electrical, optical and mechanical integration solutions.

Details about the project

During this internship project, you will collaborate closely with R&D engineers to enhance our test capabilities. You will gain understanding of our electrical and optical testing hardware, learn about our characterization methods, and engage in both conceptual and practical lab work. This hands-on experience will provide you with a comprehensive background in industry-driven R&D activities. Your daily tasks may include:

- Improving existing and developing new experimental setups for electrical or electro-optical characterization and robustness testing of integrated photonic devices.
- Implementing new test methods within these setups (instrument selection, integration, and measurement routine coding)
- Designing PCBs for mechanical sample fixation and electrical routing.
- Conducting measurements, analyzing data, and preparing documentation and reports.
- Engaging in hands-on lab tasks, such as setting up new instruments, installation of hardware components and samples into test chambers, or development of calibration routines.

The duration of the project work will be determined in accordance with the regulations of your university, a duration of 6 months is preferred.

What we are looking for

Seeking a motivated candidate with a strong interest in electrical engineering and micro-scale photonics. Desired qualifications:

- Interest in working with electrical and optical measurement equipment and designing lab setups for delicate semiconductor component testing (prior hands-on experience is a plus).
- Good Python programming skills for implementing test routines, communicating with measurement instruments and data analysis. Experience with microcontroller programming or SQL databases is advantageous.
- Experience in using PCB design software.
- Good communication skills, team spirit, and a desire to contribute within a dynamic deep-tech startup.

Eligibility: Completion of a Bachelor's program in electrical engineering, applied physics, mechanical engineering or similar field.



Job location

We are located in Stäfa in the greater Zurich area, Switzerland. The work will be primarily on site.

How to apply

Please submit your application via JOIN: join.com/companies/lumiphase/11076731. For any questions, please write us at talents@lumiphase.com.