

## Optical Engineer

**Description:** Sporian is developing a number of optical sensor (chemical and biological) technologies based on very compact optics/optoelectronics concepts. A number of these are based on conventional spectroscopic methodologies that need to be integrated in a miniaturized, low cost form factor utilizing a mix of commercial and custom designed components. Sporian requires a person with a background in optics/optical system design and optical system testing who can support the ongoing hardware design efforts and subsequently assist in the testing and ultimate design optimization of the system. This person must thrive in a highly multidisciplinary environment, and be able to support a range of traditional R&D tasks, such as: reviewing literature, appraising methods/components, identifying alternatives (if appropriate), making suggestions toward implementing improvements, implementing concepts as practical designs, coordinating component acquisition and fabrication, component/system testing, analyzing/reporting data, and developing documentation. In addition to hands on work, this position is expected to work closely with project managers and other engineers/technical staff and assist in the development of project plans, proposals, and designs.

**Education and Experience Requirements:** PhD, MS (with 2 year related work/research experience), or BS (with 5 years related work/research experience) in areas such as: optics, optoelectronics, optical system design, optical modeling, spectroscopic system design, optical sensors, or opto-mechanical design.

### Required Skills/Qualifications:

- Background in optics/optical system design and optical design theory.
- Prior relevant experience in designing/implementing optical systems.
- Hands on experience with: optical test setup, testing methodologies, and optical component assembly/alignment methods.
- Willingness and ability to learn quickly and contribute in areas outside of prior experience
- Self-motivated with positive attitude to pursue excellence. Results oriented problem solving research capability. Define plans, self-schedule, and organize to maximize productivity and working efficiency.
- Experience with optical modeling and simulation software such as Zemax.
- This position requires work on DoD contracts that require US Citizenship status.

### Desirable (but not required) Technical Experience:

- Prior research/R&D experience.
- Experience with optoelectronics, including laser diodes and photo-detectors (including arrays).
- Experience with/knowledge of optoelectronics packaging
- Experience/Knowledge of common spectroscopy methods optical theory, such as IR, Raman, and FTIR.
- Understanding of analysis and correction/mitigation methods related to controlling stray light.
- Experience with mechanical CAD software such as Solidworks.

### Additional Expectations:

- Self-motivated
- Self-starter

- Detail oriented
- Flexible
- Multi-tasking
- Team player
- Life-long learner
- Customer oriented
- Proficient with Internet

**Physical Context/Work Environment:** Sporian Microsystems, Inc. is conveniently located in Lafayette near to US-287 in Boulder County, and close to Broomfield, Louisville and Erie. Work is typically conducted in an office environment with travel locally and domestically with infrequent international travel.

If you are interested in this job opportunity, please email a cover letter that describes how your skills and experience fulfill the above requirements along with your resume to [oe1805@sporian.com](mailto:oe1805@sporian.com) and reference: W – Optical Engineer in the subject line.

We are an equal opportunity employer. Qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, or national origin.