Job Title: Principal Scientist or Engineer

PhD in photonics, optical, electrical, aerospace, applied physics, or mechanical/packaging engineering

At Northstar Photonics, our mission is to leverage the unique capabilities of photonics to develop enabling technologies for the advancement of human space exploration, national defense, and scientific discovery. Our products reflect a decades-long focus on devising practical photonics-based solutions to fulfill on the challenging opportunities that arise in these domains. Our relationships with our customers, both government and commercial, are built on the trust that accumulates through years of consistently meeting these demanding application requirements.

Northstar Photonics is seeking to hire a self-motivated, creative, and innovative individual with strong fundamentals in the design, optimization, layout, and fabrication of photonic devices. This role is focused on extending the realm of the achievable through diligent research, creative problem solving, and constructive engagement with an experienced team. Ideal candidates will have the intuition to take ideas that begin on a whiteboard then get simulated in modeling and see them through to implementation as a prototype and onward into production.

Responsibilities

The candidate will join a highly entrepreneurial team devising, advancing, and executing projects in photonics and integrated optics that become niche products for applications in navigation, sensing, and signal processing. Through careful experimentation, the team develops deep understanding of the underlying device physics so that our platform technologies are continually evolved towards ever-higher standards of performance. The responsibilities of the position include:

- Develop a deep, empirically informed knowledge of our existing device capabilities
- Introduce and advocate your own solutions to technical challenges
- Examine design possibilities using at least one of our commercial photonic modeling packages
- Collaborate in the fabrication of devices in our cleanroom
- Design, set up, and execute optical, electrical, thermal, and mechanical examinations and tests of the devices we develop
- Support the transition of mature designs into low-volume production by writing and reviewing work instructions and other documents required for design control
- Maintain a working knowledge of developments in the field of photonics, in particular lithium niobate, thin-film lithium niobate, and silicon nitride devices
- Support the development of new R&D business through the identification and cultivation of funding sources and the writing of research and development proposals

Qualifications

- PhD in photonics, optical, electrical, aerospace, applied physics, or mechanical/packaging engineering or related field
- 5+ years of industry experience
- Design and demonstration experience with integrated photonic devices
- Experience with integrated photonics measurement, and theoretical understanding of the subject
- Experience initiating novel concept development and analysis

Desired Experience, Skills, and Traits

- Post-doctoral experience in optics and integrated photonics
- Familiarity with government grant applications (SBIR, STTR, etc.)
- Works independently and requires only minimal supervision
- Develops concepts and organizes ideas; demonstrates originality and ingenuity
- Confident working with a small, diverse team including executives, technicians, and other scientists
- Familiar with fiber optic gyroscopes and navigation systems
- Software competence in SolidWorks, AutoCad, MATLAB, or similar software

ITAR REQUIREMENTS: Separate from employment eligibility (Form I-9), U.S. export license requirements may apply before the Company can provide certain non-"U.S. persons" with access to specific technology, software and hardware that may be necessary for a position. As such, this position may require ITAR or EAR clearance.

Northstar Photonics is committed to hiring and retaining a diverse workforce. We are proud to be an Equal Opportunity Employer, making decisions without regard to race, color, religion, creed, sex, sexual orientation, gender identity, marital status, national origin, age, veteran status, disability, or any other protected class.

Please email your resume to info@northstarphotonics.com

Visit us at: https://www.northstarphotonics.com/