



Staff Scientist - Laser Development

Vescent is a leading designer and manufacturer of precision lasers, frequency combs, and control electronics for use in atom cooling, quantum sensing, precise timing, and other optical physics applications.

Description:

Vescent Photonics seeks a creative and highly driven laser scientist to join our Research & Development team in Golden, CO. The right candidate will work on the development of state-of-the-art laser and optoelectronic systems, ranging from frequency-stabilized lasers to ultrafast frequency combs for next-generation quantum technologies. The successful candidate will also help lead the development of emergent quantum sensors. The candidate will be efficient in their work ethic, highly self-motivated, and enthusiastic about laboratory research in an industrial setting. The candidate will also manage research projects as a principal investigator and seek out new funding opportunities for next-generation research and development. This position is >85% on-site and in-laboratory.

Vescent Photonics develops and manufactures high-performance electro-optics, tunable lasers, and electronics for precision laser control. Being a recognized leader in laser control systems and centrally located in the Denver area allows for frequent collaborations with nearby academic and private institutes to further Vescent's product line and research goals. R&D is a central part of Vescent's mission, fueling technology innovations that turn into world-class products. The work environment is fun, fast-paced, challenging, and interdisciplinary, involving a high degree of coordination between electrical, mechanical, and optical systems. The Vescent team takes pride in its work, is energetic and agile, and enjoys celebrating milestones.

Travel requirements: Occasional (5-10% total) trips to conferences and/or customers

Location: Golden, Colorado, USA

Duties:

- Analyze, model, design, assemble, and test lasers, electro-optical systems, and atomic and molecular physics packages for prototype quantum sensor projects.
- Conduct research both as an individual and in a team environment.
- Manage contract research projects to be on time and within budget, including effectively communicating with customers, industry/academic partners, and vendors.
- Transition assembly and testing of optical systems to production engineers and technicians as needed.
- Write effective proposals to secure funding through government and commercial contracts.

Required Qualifications:

- Ph.D. or M.S. in Physics, Optics, Optical Engineering, Electrical Engineering, or equivalent degree in relevant field.
- At least 3 years performing hands-on R&D in an optics/laser laboratory.
- Demonstrated technical writing experience.

Vescent
14998 W 6th Ave # 700
Golden, CO 80401

Ph: 303-296-6766
Fx: 303-296-6783
www.vescent.com



- In compliance with federal law, all persons hired will be required to verify identity and eligibility to work in the United States and to complete the required employment eligibility verification form upon hire.

Desirable Additional Skills:

- Expertise in quantum sensor requirement capture, design, and/or construction. Experience in neighboring quantum fields, such as clocks and computers, is also welcome.
- Expertise in photonic integrated circuits (PICs) and semiconductor laser devices including design, fabrication, and/or packaging.
- Expertise with fiber laser and semiconductor-based laser design and construction.
- Expertise in laser frequency stabilization and servo feedback control of electro-optical systems.
- Proficiency in designing and troubleshooting electronic circuits, especially with opto-electronic components such as diode lasers and photodetectors.
- Electro-optical product development experience.
- Experience with wavelength conversion via nonlinear optics.
- Demonstrated proficiency in computer programming (Python preferred), data analysis tools, and physical simulations (including, but not limited to, Zemax and Solidworks).
- Proposal writing experience.

Salary Range & Benefits:

- \$110,000-\$150,000
- PTO, health/dental insurance, and participation in the company 401k retirement and incentive stock plans

How to Apply:

Please send your resume and a cover letter to jobs@vescent.com. Your cover letter should express how your skills, qualifications, interests addressing the job description, and why you want to work at Vescent. Applications without a resume and cover letter will not be considered. Vescent Photonics is an equal opportunity employer.