



Research Engineer - 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 research engineer to join our Research & Development team. The candidate will be responsible for working in a collaborative environment and advancing research development projects involving advanced laser systems for cutting-edge R&D applications and field-deployable precision measurements. The right candidate is a hands-on “lab enthusiast” who really enjoys learning new skills, solving challenging technical problems, and being part of a highly collaborative team. This position is >90% on-site and in-laboratory.

Vescent Technologies develops and manufactures high-performance electro-optics, narrow-linewidth lasers, mode-locked lasers, and electronics for precision laser control. Being a recognized leader in laser systems for the quantum industry and centrally located in the Denver, CO 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 collaborative, challenging, fast-paced, and interdisciplinary, involving a high degree of coordination between electrical, mechanical, and optical systems. Vescent offers a competitive salary and a full benefits package, including four weeks PTO, health/dental insurance, retirement plan, and an incentive stock plan. Located at the foot of the Rockies and only 20 min from downtown Denver, our staff enjoys the full breadth and beauty of the mountains and the outdoor lifestyle they inspire, while also partaking in the bustling culture of city life.

Location: Golden, Colorado, USA

Duties:

- Work independently and collaboratively on research projects.
- Design, construct, and test prototype lasers and electro-optical systems.
- Perform laboratory measurements. Analyze and present test data.
- Develop assembly and test procedures. Create documentation and transition to teammates.
- Participate in discussions with collaborators.

Required Qualifications:

- B.S. in Physics, Optical Engineering, Electrical Engineering, or a related technical field.
- Experience writing technical papers or reports.
- Demonstrated laboratory experience in lasers and electro-optics.
- Experience with electronics test equipment (e.g. oscilloscopes, multimeters, spectrum analyzers, network analyzers, frequency counters).
- Demonstrated proficiency in computer programming and data analysis tools (e.g. Python preferred, Matlab acceptable).
- U.S. citizen or permanent resident.

Vescent
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Desirable Additional Skills:

- Experience in the field of atomic, molecular, and optical physics, particularly with atom-based sensors.
- Laser spectroscopy and/or frequency stabilization (data analysis, laser frequency stabilization, servo controllers, etc.)
- Experience in the application of optical frequency combs (e.g. dual comb spectroscopy, optical frequency synthesis, optical atomic clocks, laser metrology, lidar, etc.)
- Experience with electro-optic integration and debugging.

Salary Range & Benefits:

- \$65,000-\$100,000
- 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.