

## **Job Title: Mechanical Engineer**

### **Description**

Bridger Photonics, a rapidly growing photonics company specializing in precision laser sensors, seeks a qualified candidate to fill a full-time salaried position.

Responsibilities include, but are not limited to:

- supporting the mechanical design, drafting, construction, and testing of potentially complex mechanical and optical systems related to advanced LADAR, LIDAR, and advanced imaging research, development, and products.

Specific tasks include, but are not limited to:

- designing, constructing, and testing precision optomechanical subassemblies and production units for commercial sales.
- designing, constructing and operating LADAR and LIDAR transmitters, receivers, and the associated mechanical structures for advanced demonstrations,
- designing, drafting, constructing, and testing chassis for system controllers.
- designing, drafting, constructing, and testing optical subassemblies that require careful thermal consideration and analysis,
- working with high-average-power cw lasers ( $> 10$  W) and high-energy pulsed lasers ( $> 10$  mJ),
- working with nonlinear optical crystals,
- performing LADAR and LIDAR experiments both in house and in the field,
- working with scientists and engineers to develop detailed optomechanical designs,
- acquiring and processing data,
- performing hands-on machining when needed,
- working with vendors to obtain optomechanical and electro-optical components,
- verifying quality of purchased components,
- creating test procedures,
- troubleshooting and resolving optical system performance issues,
- writing technical reports and users manuals,
- preparing and giving customer presentations.

### **Knowledge, Skills & Experience**

Required qualifications:

- B.S. or higher in Mechanical Engineering or equivalent field.
- more than 2 years of direct hands-on experience designing, drafting, and constructing complex mechanical assemblies for commercial sales or applications,
- demonstrated expertise and proficiency in mechanical design and construction, including assembly, troubleshooting, testing, packaging, and tolerancing of complex systems.
- demonstrated expertise and proficiency with SolidWorks mechanical design software.
- demonstrated expertise in thermal analysis of mechanical designs,
- able and willing to work extremely hard and efficiently in fast-paced laboratory environment,
- able to take initiative and work independently on assigned projects,
- excellent written and communication skills,
- team player that works well with others.

Preferred qualifications:

- BS or higher in Mechanical Engineering or equivalent field,

- experience designing optomechanical assemblies and components including lenses and mirrors, lasers, polarization optics, nonlinear crystals, fiber optics and photodetectors,
- experience with LADAR, LIDAR, laser remote sensing, optics, photonics, nonlinear optics, and lasers,
- experience with finite element analysis for thermal modeling,
- experience with aerospace and/or military systems,
- experience with LabVIEW data collection software, Zemax optical design and analysis software, Matlab mathematical modeling software.

#### **Additional Information**

- This is a full-time, salaried, exempt position,
- Salary is commensurate with education, experience, and skills,
- US citizenship or Permanent Residency required,
- Bridger Photonics, Inc. is an Equal Opportunity Employer and will not discriminate against any employee or applicant for employment because of race, color, religion, disability, sex, familial status, or national origin.

For full consideration, please submit by **Friday, September 30, 2011,**

- cover letter that identifies the job title for which you are applying,
- resume,
- contact information for four professional references,

via **email** to (please put the job title for which you are applying in the subject heading of your email):

**Bridger Photonics, Inc.**

**Human Resources**

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