Position: Electrical Engineer / FPGA Designer

Reports to: Director of Engineering

About the Company:

Founded in 1968, Klein Marine Systems is the world's leading supplier of side scan sonar equipment. Our sonar is used by the world's largest Navies, surveyors, universities, and wreck hunters. One of our many successes is developing sonar that found the Titanic wreck.

Our strategic location in Southern New Hampshire enjoys short commutes, low taxes, lower housing cost, and convenient proximity to the Boston metro area.

Job Description:

Design cutting-edge sonar imaging systems for both unmanned underwater vehicles (UUV) and underwater towed systems. Convert logic and algorithm descriptions into functional products. Debug completed PCB assemblies in-system, in collaboration with other software and hardware engineers. Enjoy learning from the very best in the industry while making a significant personal contribution.

Areas of work to include:

- Mixed signal design
- FPGA coding (Verilog / System Verilog)
- Verification testing
- Collaboration with software and mechanical engineering

Requirements:

- BS Electrical Engineering – Or similar experience
- Experience designing electronics, FPGA or embedded microprocessor systems

FPGA - Required

- Design FPGAs from specifications using Verilog HDL. (Xilinx, Vivado experience a plus)
- Use Verilog test benches to verify FPGA compliance to specifications.
- Apply suitable timing constraints to guarantee reliable operation.

FPGA - Preferred

- Familiarity with digital filters in FPGA - low-pass, pulse-compression, FFT.
- Ability and willingness to reverse-engineer and improve existing FPGA designs.

Circuit Design Required:

- Design digital PCB circuitry for data I/O, computer interface. (OrCAD experience a plus)
- Guide PCB layout to achieve signal integrity in digital circuitry. (PADs experience a plus)