

Embedded Systems Engineer

Company Overview: Sentek Instrument LLC is a high-tech company specializing in developing and manufacturing unique sensor instruments to meet critical and long-standing sensing needs unmet by other commercial offerings. Operating within the Virginia Tech Corporate Research Center, we are at the forefront of innovation across multiple fast-growing industries.

Position Overview: We are seeking a highly motivated **Embedded Systems Engineer** to join our vibrant team. In this role, you will contribute to the research, development, and manufacturing of cutting-edge sensors and instrumentation systems, playing a key part in delivering solutions that make a significant impact.

Responsibilities:

- Develop firmware and software for sensor interrogation instruments using languages such as Verilog and C/C++, and development tools like Xilinx Vivado and Xilinx ISE.
- Assist with or lead research projects in optical sensor instrumentation.
- Collaborate with cross-functional teams to support product manufacturing and application deployment.

Qualifications:

Required:

- Bachelor's or advanced degree in Computer Engineering, Electrical Engineering, Optics, Physics, or a related field with substantial embedded systems experience.
- Proven experience in FPGA coding, including high-speed ADC data acquisition.
- Proficiency with SoC (Arm) FPGA architectures such as Zynq.
- Ability to work effectively both independently and as part of a team.
- Strong problem-solving skills with a goal-oriented mindset.

Preferred:

- Prior experience in FPGA implementations of signal processing and USB to PC data transfer.
- Prior experience in FPGA hardware schematic design and PCB layout.
- Background in optics or optical sensors.
- Experience with front-end application development and maintenance.

Benefits:

- Competitive compensation package.
- 401(k) matching and retirement plan.
- Paid time off (PTO) and health benefits.
- Opportunities for professional growth in a fast-paced, innovative environment.

Location: Blacksburg, Virginia—a college town offering a high quality of life, excellent schools, and ample outdoor activities. It's a welcoming community ideal for both individuals and families.

Equal Opportunity Employer: Sentek Instrument LLC is an equal opportunity employer committed to creating an inclusive workplace for all employees regardless of background.

How to Apply: To apply, please send your resume and cover letter to hr@sentekinstrument.com. We look forward to exploring how you can contribute to our team's success.