
Electrical Engineer

Sporian conducts research and development that is at the forefront of science and technology. We focus on advanced sensors for applications in aerospace, energy generation, IIoT, and related industries. At Sporian, you will be involved with developing sensors and sensor systems from the conceptual stage through proof-of-concept development, detailed development, testing, and fielding. Sporian is a small, technically focused company. At Sporian, you will work in a collaborative environment on multidisciplinary teams with highly talented peers from a wide range of technical disciplines who have a passion for solving difficult problems in unique ways.

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Sporian requires a person with a strong embedded electronics background to conduct design, analysis, and related tasks for analog or mixed signal circuits for use with sensor devices being developed by Sporian. The successful candidate will have demonstrated ability to define system and subsystem designs from the conceptual to detailed levels, to compare, evaluate, and select components, and to build, test, and troubleshoot prototypes. Sporian is seeking a detail oriented engineer who is able to evaluate design options and confidently choose the solution that best suits the technology goals. This person must thrive in a highly multidisciplinary, dynamic, and fast paced environment. The successful candidate will be expected to work with project managers, engineers, customers, subcontractors, and suppliers, to develop project plans, specifications, and performance requirements.

This position can evolve into a position leading small multi-disciplinary teams of 3-6 people while continuing to make significant technical contributions to the projects they are managing, and to successfully deliver results on R&D projects and push those results toward productization. Sporian also desires a person who has an interest in and is capable of managing projects and performing in a principal investigator (PI) role while also contributing to the technical aspects of those projects.

Education and Experience Requirements: This position requires an individual with a BS or MS degree in electrical engineering or similar engineering field. Experience in a related industry is also highly desirable.

Required Skills/Qualifications:

- 3+ years of hands-on experience/work history with analog, mixed signal, switching power supplies, and microcontroller circuit design and test debug.
- This position requires work on DoD contracts that require US Citizenship status.
- Experience doing both schematic capture and PCB layout.
- **Strong knowledge of analog circuit theory and design.**
- Experience doing design and layout experience including the following:
 - Controlled impedance for high-speed serial channel design or RF technologies.
 - Communications interfaces (I2C, SPI, Ethernet, USB, RS-232, RS-485, SDIO, CAN, MIL-STD-1553, LVDS etc.).
 - Analog and sensor interface design.
 - DC/DC switching power supply design.
 - Low power and ultra-low power design.
 - BGA and fine pitch layout.
 - Making new symbols and foot prints with 3-d models.
 - FPGA design and usage.
- Ability to propose and simulate circuit designs using analytical and numerical methods.
- Ability to self-generate design and development schedules and project tasks.

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- Ability to generate design requirements and specifications.
- Software familiarity with C and Python languages.
- Ability to quickly transition between disparate efforts and responsibilities.
- Ability to work in a multidisciplinary R&D environment
- Strong written and verbal communications skills.
- Willingness and ability to learn quickly and contribute in areas outside of prior experience.

Desirable (but not required) Technical Experience:

- Experience with Altium Designer and/or KiCad.
- Understanding of microcontroller configuration and use, with the ability to communicate functional requirements and specifications to firmware engineers.
- Verilog or VHDL experience.
- Familiarity with version control tools such as git.
- Simple SQL usage.
- Experience with National Instruments DAQ modules and LabView.
- Hands on board/system construction experience including basic component assembly, soldering, prototyping, fabrication, verification, characterization, debugging, and troubleshooting skills.
- Prior research/R&D experience.
- Prior experience serving in a lead Investigator role.
- Prior experience in a product development environment.
- Strong technical writing skills and research documentation habits.

Additional Expectations:

- Life-long learner
 - Multi-tasking
 - Flexible
 - Team player
 - Self-motivated
 - Self-starter
 - Detail oriented
 - Customer oriented
 - Excellent written and verbal communication skills
- Proficient with relevant software tools under Linux and Windows.

Physical Context/Work Environment: Sporian Microsystems, Inc. is conveniently located in Lafayette near to US-287 in Boulder County, and close to Broomfield, Louisville and Erie. Work is typically conducted in both an office environment and a lab environment with occasional travel locally to nearby businesses and infrequent travel both domestically and internationally.

How to apply:

- Include a cover letter that describes how your skills and experience fulfill the above requirements.
- Email your cover letter and resume to EE2501@sporian.com.
- Reference: "W – Electrical Engineer" in the subject line of your e-mail.

This is a full-time position.

We are an equal opportunity employer. Qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, or national origin.

Sporian participates in E-Verify and will provide the federal government with your Form I-9 information upon hire to confirm that you are authorized to work in the U.S.

In connection with Colorado's "Equal Pay for Equal Work Act," Sporian Microsystems, Inc. provides the following information:

Pay Range: \$75,000 to \$115,000 per year. This represents a reasonable estimate at the time of posting. Final compensation will be based on a variety of factors, including relevant experience, knowledge/education, and skills/abilities.

Bonus Information: This position is eligible for Sporian's yearly profit-sharing bonus.

Benefits:

- Medical and Dental Insurance
- Flexible Spending Account - healthcare and dependent care
- Individual Retirement Account with employer match
- Paid time off and holidays