



EMBEDDED SOFTWARE ENGINEER - Renewable Energy

In business **since 1993**, Morningstar Corporation is a world leading supplier of solar charge controllers and inverters. We are adding to staff with an **EMBEDDED SOFTWARE ENGINEER** in our Jessup, MD engineering center.

About Morningstar

Morningstar is a rapidly growing OEM in the solar energy and photovoltaic (PV) industry with an international presence and a reputation for providing high quality and reliable power electronics. Our primary focus is solar charge controllers and inverters for the off-grid solar market. Morningstar products are expected to be extremely reliable and efficient while also withstanding extreme environmental conditions. Our products provide power where there is no grid including: remote telecom, rural electrification in the developing world, research stations, oil/gas, railroad, and many other markets.

Your New Job Description

Our **Embedded Software Engineer** will collaborate with our development team on a wide variety of projects including embedded software for **power converters, GUI and HMI's, instrumentation devices, web and cloud services, PC applications, LabView programs, and mobile apps.**

Your core responsibilities include embedded software coding, testing, debugging, and documentation. Our qualified candidates will possess good written and verbal communication skills, the ability to multi-task and manage several projects in parallel, and be productive in a small team where interpersonal skills and collaboration are paramount.

Responsibilities

- Code development for embedded microprocessors, new product development
- Refactors existing microprocessor code
- Writes well documented code and adheres to the group's programming conventions
- Creates modular and reusable code where appropriate
- Collaborates with the software and hardware engineers to ensure smooth integration and test.

Required Skills & Experience

- ✓ BS in CS or CE
- ✓ **C and C++** code development in resource-constrained **real-time embedded** systems.
- ✓ Experience developing bare-metal (no RTOS) applications - familiar with associated challenges
- ✓ Fixed and floating point processors.
- ✓ Software development experience with:
 - **ARM embedded cores, DSP, PIC, and FPGAs**
 - **TCP/IP, USB, EIA-485, 802.11x standards**
 - **I2C, SPI, UART, JTAG buses / interfaces**
- ✓ Experience working on a collaborative code development team
- ✓ Experience using repository and tracking tools like **SVN and bugzilla.**

Skills & Knowledge Desired

- ❖ Basic understanding of control theory, PI loops etc.
- ❖ Code development for power electronics
- ❖ Design and documentation using UML
- ❖ Windows programming (vb, C++, .NET)
- ❖ Java, Javascript, html5
- ❖ LabWindows, LabView
- ❖ Understanding of photovoltaic systems

Salary & Benefits

Morningstar offers a highly competitive salary and full benefit package including Medical, Dental, Vision, Long Term Disability insurance, 401k Retirement Savings Plan with company matching, Employee Stock Purchase Plan (ESPP) and Incentive Stock Option Plan (ISO). Your salary is commensurate with your experience.

How to Apply

We invite you to submit a **resume and cover letter** with your salary requirements to: CAREERS@morningstarcorp.com
Attn: **EMBEDDED SOFTWARE ENGINEER**, Jessup, MD office.

As we go further along, we may also ask for your professional references, a copy of your college transcript and samples of your technical writing. We will make every effort to keep the interview process as stream-lined as possible so that you may learn about us while we learn about you.

Please visit our website at www.morningstarcorp.com for further information about Morningstar's product line.