Subject: RPM Innovations, Inc. – Software Engineer Job Requirements

RPM Innovations, Inc., a leading industrial service company in the western United States, is accepting applications for the position of Software Engineer at its corporate facility in Rapid City, South Dakota.

Qualified candidates should have a bachelor's degree in computer science, software engineering, computer engineering, mathematics, or information science. Candidates with equivalent work experience who have demonstrated skills in computer programming may also be considered.

General Responsibilities: Design, develop, and modify computer applications software or specialized utility programs. Analyze business & system requirements and develop software solutions to satisfy those requirements. Design or customize software with the aim of optimizing operational efficiency and reliability. Apply principles and techniques of computer science, engineering, and mathematical analysis.

Competitive wages are being offered, DOE and qualifications. An attractive benefit package includes health/dental insurance, simple IRA program, paid holidays/vacation and an employee assistance program. Mandatory pre employment drug screen is required.

Specific Responsibilities:
- Develop software solutions by studying information needs; conferring with users; studying systems flow, data usage, and work processes; investigating problem areas; following the software development lifecycle.
- Interface with and control additive manufacturing hardware: laser, motion controller, motors, sensors, drives, etc.
- Analyze requirements – line-of-business, use case, and technical – to acquire an integrated understanding of the additive manufacturing process.
- Produce specifications and determine operational feasibility of the current specifications.
- Determine design feasibility within time and cost constraints.
- Design, develop, and modify software systems which provide predictable outcomes; the designs must always provide for operator safety.
- Write well-designed, testable, efficient code which adheres to the SOLID principles.
- Modify existing software to correct errors, allow it to adapt to new hardware, or to improve its performance
- Develop and perform software verification plans and quality assurance procedures: regression tests, code reviews, design reviews, etc.
- Demonstrate that the solutions meet the requirements by developing documentation; the creation of flowcharts, layouts, and diagrams; code comments and annotations; and producing clear, logical, and maintainable code.
- Demonstrate knowledge of general programming skills such as: analyzing information; software design, debugging, and testing; software requirements and documentation specification; problem solving and teamwork skills; software development fundamentals; application lifecycle management; and agile methodologies.
- Execute full lifecycle software development as part of a interdisciplinary team.
- Improve operations by conducting systems analysis; recommending changes in policies and procedures.
- Coordinate software system installation, including integrating software components into a fully functional software system.
- Monitor equipment function to ensure specifications are met.
- Write operating manuals or communicate effectively with the manual writer.
- Obtain and license software by gathering required information from vendors; recommending purchases; testing and approving products.
- Assist with technical specifications for computer related purchases.
- Evaluate and recommend hardware and software solutions to improve the security and efficiency of company operations.
- Update job knowledge by studying state-of-the-art development tools, programming techniques, and computing equipment; participating in educational opportunities; reading professional publications; maintaining personal networks; and participating in professional organizations.
- Protect operations by keeping information confidential, the applicant will have access to industrial and trade secrets, thus protection of intellectual property is crucial.
- Train users to operate new or modified equipment.
- Train employees on the use of various third-party and internal software applications.
- Assist with the design and implementation of information system solutions for tracking employee time, material, accounting, and other information resources.

Other Requirements:
- Excellent technical and problem-solving skills.
- Good communication and teamwork skills are required; preference given to motivated individuals who demonstrate creativity and a willingness to learn.
- Must possess excellent written, verbal, and customer relation communication skills.
- Capacity to work well in groups and a willingness to understand the various roles played by fellow team members
- Proven working experience in software engineering.
- Ability to document requirements and specifications.
- Ability to develop software in C#, VB.Net, C++, or other selected languages.
- Excellent multi-tasking skills. Prioritize and perform a variety of concurrent tasks with minimal direction.
- Must maintain a mind-set of continuous improvement, in terms of efficiency of support processes, customer satisfaction, and the application of tools for monitoring, management, and optimization
- Support internal cross-functional development by contributing to the ongoing maturation of the company's processes and procedures.
- Ability to work on another's design.
- The following items are preferred, but not required for the position.
    - Prior motion control knowledge.
    - Familiarity with numerical control programming languages used in computer-aided manufacturing – G-code, M-code.
    - Familiarity with additive manufacturing concepts, especially metal-based additive manufacturing knowledge.
    - Familiarity with 5-axis machine systems.
    - Familiarity with software development methodology and release processes, especially agile programming & SOLID Principles.
    - Numerical and analytical skills such as computational geometry used in path planning.
    - Familiarity with GigE cameras / industrial vision systems.
    - Familiarity with long-running, multithreaded applications.
    - Familiarity with RTOS and real-time processes.

Technologies Used:
- Programming Languages and Tools: MS Visual Studio, C#, Visual Basic.Net, MS Team Foundation Server, ANTS Profiler
- MS Windows Server 2008, MS SQL Server 2008, MS SQL Server Express, MS SharePoint, MS Exchange
- Workstation Operating Systems: MS Windows 7 Professional, MS Windows 8, and MS Windows 10
- Other: Microsoft Office 2013, ABB Mint Workbench, IPG LaserNet (stand-alone program, C API, and TCP Protocol), TeamViewer, TrueCrypt/VeraCrypt

Apply on-line at http://www.RPM-Innovations.com/Employment