



Engineer – Software Development

O*Net code : 15-1133.00

Software Developers, Systems Software

LOCATION/DEPT: St Paul, MN or Albuquerque, NM
STATUS: Full Time – Exempt - Professional
SUPERVISOR: Software Engineering Manager or Sr. Principal Engineer

GENERAL JOB DESCRIPTION

The Software Development Engineer will be part of an engineering team responsible for the design development and manufacture of advanced Additive manufacturing systems with an emphasis on LENS directed by energy metal deposition systems that are revolutionizing manufacturing. This position must be adept at design, development, coding, diagnostics, and testing of complex machine sub systems including: control systems, software, mechatronics, vision and motion control.

Research, design, develop, and test operating systems-level software, compilers, and network distribution software for 3D LENS and Aerosol Jet systems. Set operational specifications and formulate and analyze software requirements. May design embedded systems software. Will apply principles and techniques of computer science, engineering, and mathematical analysis. Will work as a member of a project team.

MAJOR RESPONSIBILITIES

- Collaborate with engineers, scientists and technicians to create innovative new products and applications, as well as refine and expand the performance of existing products.
- Modify existing software to correct errors, to adapt it to new hardware, or to upgrade interfaces and improve performance.
- Develop or direct software system testing or validation procedures.
- Capital equipment product development.
- Direct software programming and development of documentation.
- Consult with customers or other departments on project status, proposals, or technical issues, such as software system design or maintenance.
- Analyze information to determine, recommend, and plan installation of a new system or modification of an existing system.
- Consult with engineering staff to evaluate interface between hardware and software, develop specifications and performance requirements, or resolve customer problems.
- Design or develop software systems, using scientific analysis and mathematical models to predict and measure outcome and consequences of design.
- Prepare reports or correspondence concerning project specifications, activities, or status.
- Confer with project managers to obtain information on limitations or capabilities for data processing projects.

- Store, retrieve, and manipulate data for analysis of system capabilities and requirements.
- Coordinate installation of software system.
- Monitor functioning of equipment to ensure system operates in conformance with specifications.
- Advise customer about or perform maintenance of software system.
- Train users to use new or modified equipment.
- Specify power supply requirements and configuration.
- Evaluate characteristics of equipment or systems.
- Confer with other personnel to resolve design or operational problems.
- Modify software programs to improve performance.
- Monitor computer system performance to ensure proper operation.
- Manage information technology projects or system activities.
- Develop testing routines or procedures.
- Provide technical support for software maintenance or use.
- ***Other duties as assigned based on project, title, and level of responsibility.***

QUALIFICATIONS FOR THE JOB

Education:

- BS degree in electrical engineering, computer science or software development.
- Graduate degree preferred.

Experience:

- 2 yr. development in Microsoft Windows environment, utilizing .NET, and VB, or C#, C/C++, and SQL.
- Software development.
- Technical writing skills.

Preferred Experience

- >2 years relevant experience designing complex software systems
- New Product Development, Manufacturing Readiness, and Market Launch
- Software support of manufacturing
- Lean Manufacturing, Design for Manufacturability, Six Sigma, etc.
- Project Management
- Work in Additive Manufacturing Industry a plus

KEY COMPETENCIES

- **Computers and Electronics** — Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.
- **Engineering and Technology** — Knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.
- **Mathematics** — Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.

- **Telecommunications** — Knowledge of transmission, broadcasting, switching, control, and operation of telecommunications systems.
- **Design** — Knowledge of design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models.
- **Software Tools** - Expertise using CAD software, preferably SolidWorks
- Ability to work well as a cross-functional team member
- Hands-on lab and troubleshooting
- Communications; written & presentation
- Detail Oriented
- Knowledge of basic manufacturing processes
- Technical writing and/or comprehension.
- Solid understanding of software design and implementation.

WORKING CONDITIONS

- Will work in an office setting, manufacturing, lab, and warehouse location.
- Goggles must be worn at all times in lab and designated areas.
- Lab/warehouse environment contains metal powders, chemicals, etc.

PHYSICAL REQUIREMENTS

- Warehouse conditions as applicable.
- Safety gear.

SUBMIT RESUMES DIRECTLY TO: dsaya@optomec.com

Optomec, Inc. is an Equal Opportunity Employer.