



## First Solar Job Description

**Job Title:** Software Engineer II – Manufacturing Systems

**Reports To:** Manager I - IT

**Job Status:** Exempt

### Basic Job Functions:

Engineers software, configures high-level software packages, and provides the final level of escalated support for First Solar's Mfg Systems and data architectures.

### Education and Experience:

- Master's degree in Information Technology with two years of related work experience, or
- Bachelor's degree in Information Technology with four years of related work experience or two years of First Solar IT Experience, or
- Associate's degree in Information Technology with six years of related work experience or four years of First Solar IT Experience, or
- Eight years equivalent external work experience or six years of First Solar IT experience.
- 4+ years in either manufacturing systems or on software development teams using Microsoft .NET technologies
- 6+ months of experience interfacing with manufacturing control systems, shop floor interface/automation systems, programmable logic controllers (PLCs), or OPC data transfer.

### Required Skills/Competencies:

- Troubleshooting and programming software solutions based on multi-tiered architecture using C#, XAML, ASP.NET, JavaScript, T-SQL, and MSMQ.
- Designing data structures and using/configuring/querying SQL Server databases.
- Experience with Service Fabric is preferred.
- Experience with SQL Server Integration Services (SSIS) is preferred.
- Experience with Angular and AngularJS is preferred.
- Experience with Azure DevOps, Git, YAML, and deploying via Pipelines is preferred.
- Experience with Digital Transformation, Industry 4.0 is a plus.
- Experience in developing, deploying, and supporting Windows mobile applications is a plus.
- Proven experience with software development life cycle, Agile teams, change management process, and version control packages.
- Object oriented languages
- Proven ability and knowledge of computer technology
- Excellent communication and organization skills
- Logical troubleshooting
- Proven interpersonal skills
- Global experience providing tier three support in a manufacturing environment is a plus.

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## Essential Responsibilities:

### Primary Responsibilities:

- Develop new software systems and modify existing ones for First Solar's manufacturing, reliability, and R&D processes.
- Integrate shop floor systems with custom-developed and off-the-shelf solutions.
- Responsible for hypercare and expert-level support on global applications for manufacturing, database, and related systems.
- Assist administrators (server admins, network admins, DB admins) in troubleshooting enterprise-level problems.
- Document recurring issues and present possible solutions.
- Interface with other departments and supplier representatives.
- Exercise effective communications levels and foster team building.
- Adhere to all safety procedures and good housekeeping standards.

### Key Competencies:

- Undertakes analytical activities and delivers analysis outputs, in accordance with customer needs and conforming to agreed standards.
- Maintains knowledge of specific technical specialisms provides detailed advice regarding their application and executes specialized tasks. The specialism can be any area of information or communication technology, technique, method, product or application area.
- Within given research goals, builds on and refines appropriate outline ideas for research, i.e. evaluation, development, demonstration and implementation. Uses available resources to gain an up-to-date knowledge of any relevant IT field. Reports on work carried out and may contribute sections of material of publication quality.
- Maintains awareness of opportunities provided by new technology to address challenges or to enable new ways of working. Within own sphere of influence, works to further organizational goals, by the use of emerging technologies and products. Contributes to briefings and presentations about their relevance and potential value to the organization.
- Provides expertise and support on use of methods and tools.
- Applies data analysis and data modeling techniques to establish, modify or maintain a data structure and its associated components (entity descriptions, relationship descriptions, attribute definitions).
- Undertakes complete design of simple applications using simple templates and tools. Assists as part of a team on design of components of larger systems. Produces detailed designs including for example: physical data flows, file layouts, common routines and utilities, program specifications or prototypes, and backup, recovery and restart procedures.
- Translates and implements simple development project requirements into physical database structures. Assesses proposed changes to object and data structures and implements these changes in physical databases. Assists in database management system support activities for operational database systems.
- Designs, codes, tests, correct, and documents simple programs, and assist in the implementation of software which forms part of a properly engineered information or communications system.
- Applies tools and methods to identify the user experience, user's characteristics and tasks, and the technical, organizational and physical environment in which the product or system will operate.
- Defines the integration build, accepts software modules from software developers, and produces software builds for loading onto the target environment. Configures the hardware environment, produces integration test specifications, and conducts tests, recording details of any failures and carrying out fault diagnosis.
- Uses the tools and techniques for specific areas of release and deployment activities. Administers the recording of activities, logging of results and documents technical activity undertaken. May carry out early life support activities such as providing support advice to initial users.
- Assists in the investigation and resolution of issues relating to applications. Assists with specified maintenance procedures.

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- Investigates problems in systems and services. Assists with the implementation of agreed remedies and preventative measures.
- Uses appropriate methods and tools in the development, maintenance, control and distribution of quality and environmental standards. Makes technical changes to quality and environmental standards according to documented procedures. Distributes new and revised standards.

#### **Reporting Relationships:**

- No direct reports.

#### **Travel:**

- No regular travel is required outside the First Solar work site.

#### **US Physical Requirements:**

Office Physical Requirements:

- All positions in our office require interaction with people and technology while either standing or sitting. In order to best service our customers, internal and external, all associates must be able to communicate face-to-face and on the phone with or without reasonable accommodation. First Solar is committed to compliance with its obligations under all applicable state and federal laws prohibiting employment discrimination. In keeping with this commitment, it attempts to reasonably accommodate applicants and employees in accordance with the requirements of the disability discrimination laws. It also invites individuals with disabilities to participate in a good faith, interactive process to identify reasonable accommodations that can be made without imposing an undue hardship.

*Potential candidates will meet the education and experience requirements provided on the above job description and excel in completing the listed responsibilities for this role. All candidates receiving an offer of employment must successfully complete a background check and any other tests that may be required.*

*Equal Opportunity Employer Statement: First Solar is an Equal Opportunity Employer that values and respects the importance of a diverse and inclusive workforce. It is the policy of the company to recruit, hire, train and promote persons in all job titles without regard to race, color, religion, sex, age, national origin, veteran status, disability, sexual orientation, or gender identity. We recognize that diversity and inclusion is a driving force in the success of our company.*

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