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Genius One, Inc.
Smart Solutions for Growth

Job Description for a Senior Software Engineer

Being asked to put together a **Job Description for a Senior Software Engineer** I came up with this:

Primary Roles and Responsibilities:

- Responsible for planning, processing and performing all jobs in an efficient manner with no assistance from the supervisor
- Working closely with upper management.
- Design and develop programming systems making specific determinations about system performance.
- Responding promptly and professionally to bug reports.
- Review and repair legacy code.
- Expected to conduct system analysis and development, with limited support from professional staff, to keep our systems current with changing technologies.
- Analyze, design, coordinate and supervise the development of software systems to form a basis for the solution of information processing problems.
- Analyze system specifications and translate system requirements to task specifications for junior programmers.
- Responsible for analysis of current programs including performance, diagnosis and troubleshooting of problem programs, and designing solutions to problematic programming.
- Responsible for developing new programs and proofing the program to develop needed changes to assure production of a quality product.
- Responsible for development of new programs, analyzes current programs and processes, and making recommendations which yield a more cost effective product.
- Writes, edits, and debugs new computer programs for assigned projects, including necessary records and desired output.
- Tests new programs to ensure that logic and syntax are correct, and that program results are accurate; assists lower-level programmers with programming assignments.
- Document code consistently throughout the development process by listing a description of the program, special instructions, and any changes made in database tables on procedural,

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modular and database level.

- Responsible for reading, understanding, and utilizing all part and assembly prints, forms, spreadsheets, bills of material, specification sheets, and technical references.
- Responsible for utilizing tools and equipment involved in performance of essential functions of programming including measuring instruments.
- Search, summarize and keep the team abreast of strategic information from all sources
- Maintain client databases
- Capable of writing proposals or papers.
- Making presentations to customer or client audiences or professional peers.
- Maintain positive client interactions.
- Strong and effective inter-personal and communication skills and the ability to interact professionally with a diverse group of clients and staff.
- Responsible for communicating with engineers and manufacturer's technical support staff regarding programming needs and performance.
- Provide general administrative support to the organization
- Provide feedback to analysis/training staff about performance considerations / usability issues concerning software specifications and implementation.
- Research and recommend software tools to management.
- Provide assistance to testers and support personnel as needed to determine system problems.
- Review, to the extent possible, changes in code and the environment that will affect system performance.
- Provide recommendations to management concerning issues of programmer productivity and software development management.

Additional skills and/or areas of expertise:

- Ability to solve problems quickly and completely.
- Ability to identify tasks which require automation and automate them.
- A solid understanding of networking/distributed computing environment concepts.
- Solid understanding the principles of routing, client/server programming.
- Possess excellent communication skills, with an emphasis on verbal and written communication.
- Ability to multi-task and stay organized in a dynamic work environment.
- Possess a positive attitude.
- Ability to "think outside the box".
- Consult with the Lead Programmer and the Technical Manager regarding professional

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skill development.

- Prepare reports and analyses setting forth progress, adverse trends and appropriate recommendations or conclusions.
- Participate in development of long range planning for new projects and facilities.
- Experience and ability to teach or instruct co-workers.
- Providing advice, training and technical support for various projects.
- Working closely with management team in evaluating current systems and making decisions on future development.
- Possess extremely advanced technical skills.
- As new technologies emerge and impact our systems, expected to learn these technologies very quickly and resolve any problems involved in integrating new technologies with our systems.
- Expert knowledge of computer languages.
- Expert knowledge of data structures.
- Expert knowledge of computer logic and flow-charting.
- Expert knowledge of computer program design methods and techniques.
- Expert knowledge of all database vendor versions.
- Expert knowledge of all compiler versions.
- Ability to learn new programming languages quickly.
- Good knowledge of mathematical and statistical principles and formulas.
- Assists the Programmer Analysts in designing programs and databases.
- Ability to write, edit, and debug computer programs to achieve desired output.
- Ability to work productively in a team.
- Expert knowledge of maintaining and debugging live software systems.
- Expert knowledge of writing program documentation.
- In-depth technical knowledge of the current hardware.
- Expert knowledge of used operating systems.
- Expert knowledge of standard development tools.
- Expert knowledge of networking technologies from the programmers prospective.
- Ability to determine whether a particular problem is caused by hardware, operating systems software, application programs, or network failures.
- Good knowledge of security and encryption.
- Updates and modifies computer programs to improve efficiency.
- Performs work of high difficulty in designing, writing, editing, modifying, and debugging computer programs.
- Define functional specifications of the system for the appropriate hardware.
- Expert knowledge of component writing.
- Demonstrated ability to use standard computing tools: Word processor, spreadsheet,

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browser, email, and file compression software.

- Overall knowledge of the computing environment at large, e.g. typical uses and user populations of operating systems, communications protocols, hardware platforms, etc.

Perform other related duties incidental to the work described herein in support of the company.

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