Software Engineer: Sr. Principal Software Engineer

Designs, develops, documents, tests and debugs applications software and systems that contain logical and mathematical solutions. Conducts multidisciplinary research and collaborates with equipment designers and/or hardware engineers in the planning, design, development and utilization of electronic data processing systems for product and commercial software. Determines computer user needs; analyzes system capabilities to resolve problems on program intent, output requirements, input data acquisition, programming techniques and controls; prepares operating instructions; designs and develops compilers and assemblers, utility programs, and operating systems. Ensures software standards are met.

Discretion/Latitude
Works under consultative direction toward predetermined long-range goals and objectives. Assignments are often self-initiated. Determines and pursues courses of action necessary to obtain desired results. Work checked through consultation and agreement with others rather than by formal review of superior.

Knowledge, Skills, and Abilities
Applies advanced technical principles, theories and concepts. Contributes to the development of new principles and concepts. Widely recognized for achievements, technical expertise and meritorious standing within the professional field. Identifies, analyzes and develops new business opportunities. Establishes customer contacts, conducts research and analysis into future plans and needs, assists with the development of specifications, develops proposals, and delivers marketing presentations.

Problem Solving
Works on unusually complex technical problems and provides solutions that are highly innovative and ingenious.

Impact
Develops advanced technological ideas and guides their development into a final product. Erroneous decisions or recommendations would typically result in failure to achieve critical organizational objectives and affect the image of the organization's technological capability. Functions in a program leadership role. Plays a key role in implementing programs/projects and makes significant contributions to department goals and overall functional strategic planning efforts.

Liason
Serves as organization spokesperson on advanced projects and/or programs. Acts as advisor to management and customers on advanced technical research studies and applications. Often instrumental in attracting and obtaining major new company business.

Minimum Education and Experience
15+ years with a BS in designated Engineering or a related field. Employees usually have an advanced degree in their field of specialization.