Information Systems Skills

SkillSet
  Skill
    SubSkill

1.0	Information Technology Skills		Job Ad Skill Words
	1.1	**Software Development**	
	1.1.1	Programming-principles, objects, algorithms, modules, testing	principles, concepts, modularity, objects and ADTs, data structures, algorithmic design, verification and validation, cohesion, coupling, language selection, user interface design, debugging, testing, documentation, installation, integration, operation
	1.1.2	Application Development-requirements, specs, developing	principles, concepts, standards; requirements, specifications, development and testing, configuration management, installation, module integration, system integration; conversion, operation
	1.1.3	Algorithmic Design, Data, Object and File Structures	analysis, design, development, debugging, testing, simple data structures
	1.1.4	Problem Solving-identify problems, systems concepts, creativity	devise questions to help identify problems, apply systems concepts to definition and solutions of problems, formulate creative solutions to simple and complex problems
	1.1.5	Client Server Software Development	thin/full client; software specs, development, testing, installation, configuration, trouble-shooting, enhancement, maintenance, training and support; report/interface, development, documentation standards, application configuration management--e.g. Source-safe; project documentation
	1.2	**Web Development**	
	1.2.1	Web page Development-HTML, page editors, tools	Frontpage, HTML, page building/edit tools
	1.2.2	Web programming-thin client, asp, ODBC, CGI, E-commerce	thin client programming: page design; HTML, *.asp coding; session variables/page security; ODBC; CGI programming; integration of multi-media; e-commerce models; tools: Perl, Interdev, Java, Active-X; interface
	1.3	**Database**	
	1.3.1	Modeling and design, construction, schema tools, DB Systems	modeling, construction, tools -top down, bottom up designs; schema development tools; desk-top/enterprise conversions; systems: Access, SQL Server/Oracle/Sybase, data warehousing & mining
	1.3.2	Triggers, Stored Procedures, Audit Controls: Design/Development	triggers, audit controls-stored procedures, trigger concepts, design, development, testing; audit control concepts/standards, audit control implementation
	1.3.3	Administration: security, safety, backup, repairs, replicating	monitoring, safety -security, administration, replication, monitoring, repair, upgrades, backups, mirroring
	1.4	**Systems Integration**	
	1.4.1	Computer Systems Hardware	fundamentals: cpu, disk, tape, bus, interface components; assembler coding, interrupts, DMA, memory addressing

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	1.4.2	Networking (Lan/Wan) and Telecommunications	fundamentals: media, devices, layered models, TCP/IP, telephony, network architecture
	1.4.3	Operating Systems Management-multi platforms/protocols, NT/Unix	multi platforms, multi protocols; systems Win 95/98, NT Server/Workstation, Unix; installation, configuration; security; connectivity, performance monitoring
	1.4.4	Computer Systems Software-OS fundamentals, resource mgt concepts	OS fundamentals: memory, disk, tape and resource management
	1.4.5	LAN/WAN Design and Management	ethernets, hubs, routers, TCP/IP, internet, intranet; enterprise networking, Lans/Wans, network administration, design, configuration, installation, optimization, monitoring, testing, troubleshooting, router configuration, router protocols, switches..., firewalls and
	1.4.6	Systems Configuration, Operation, Administration	architecture, configuration, conversion, installation, integration, administration, monitoring, maintenance, upgrades, documentation

2.0	Organizational and Professional Skills		Job Ad Skill Words
2.1	*Business Fundamentals*		
	2.1.1	Learning Business Process and Enviroment	learning business process and environment
	2.1.2	Accounting, Distribution, Finance, HR, Marketing, Production	accounting, distribution, finance, human resources, marketing, production, international business
	2.1.3	Business Problems and Appropriate Technical Solutions	business problems and appropriate technical solutions
2.2	*Individual and Team Interpersonal Skill*		
	2.2.1	Learning to learn	attitude of personal responsibility, journals, learning maps, habits of reading, listening to tapes, attending professional seminars, teaching others
	2.2.2	Professionalism-self directed, leadership, time mgt	being self-directed and proactive, personal goal setting and leadership, time management, being sensitive to organizational culture and policies
	2.2.3	Personal Skills-encouraging, listening, being organized	encouraging, listening, negotiating, being persuasive, being organized
	2.2.4	Professionalism-committing to and completing work	committing to and rigorously completing assignments

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	2.2.5	Teams-team building, vision/mission development, synergy	team building, vision and mission development, planning, synergistic consensus building and problem solving
	2.2.6	Communication-oral, written, multimedia, empathetic listening	oral, written, and multimedia techniques; communicating in a variety of settings; empathetic listening, principle centered leadership
	2.2.7	Ethics-theory/concepts,setting an ethical example	ethical theory and concepts, codes of ethics--AITP/ACM; setting an ethical example; ethical policies

3.0	Strategic Organizational Systems Development		Job Ad Skill Words
	3.1	*Organizational Systems Development*	
	3.1.1	Strategic Utilization of Information Technology	use of IT to support business process, team development systems, reengineering concepts and application
	3.1.2	IS Planning	value of IT, integration of IT in reengineering, IT policy
	3.1.3	IT and Organizational Systems	types of systems relationship of business process and IT, user developed systems, use of packaged software, decision systems
	3.1.4	Information Systems Analysis and Design	information analysis, group techniques/meetings design, information architectures, enterprise IS development with strategic process; application and security planning; conversion and testing
	3.1.5	Decision Making	personal decision making, Simon's model, structured, unstructured decisions, decision tools, expert systems
	3.1.6	Systems Concepts, Use of IT, Customer Service	develop client relationships, understand and meet need, involving the client
	3.1.7	Systems Theory and Quality Concepts	system components, relationships, flows, concepts and application of events and measurement, customer expectations, quality concepts
	3.2	*Project Management*	
	3.2.1	Team Leading, Project Goal Setting	establish project goals consistent with organizational goals
	3.2.2	Monitor and Direct Resources and Activities	specify, gather, deploy, monitor and direct resources and activities

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	3.2.3	Coordinate Life Cycle Scheduling and Planning	life cycle coordination, consultant management, schedule management, use of project planning--e.g. Project; team building; reporting; documentation management
	3.2.4	Apply concepts of continuous improvement	apply concepts of continuous quality improvement, providing reliable, cost-effective solutions that satisfy formal standards for performance, capacity, reliability, security, and safety; concept of standard practice--IEEE; ISO 9000; Federal, state and local
	3.2.5	Project Scheduling and Tracking	planning, scheduling and milestones; selection of process model; organizational issues; work breakdown structures; staffing; cost estimation, risk analysis, resources allocation, reviews, measurement, feedback, communication, ensuring quality, tools