









Occupation Profile for Computer and Information Research Scientists in Denton County, TX

Related Occupations Table

The table below shows a list of occupations related to Computer and Information Research Scientists.

| Rank | Related Occupations | Duties | *Related By |
|------|--|--|-------------|
| 1 | Aerospace Engineers  | Perform engineering duties in designing, constructing, and testing aircraft, missiles, and spacecraft. May conduct basic and applied research to evaluate adaptability of materials and equipment to aircraft design and manufacture. May recommend improvements in testing equipment and techniques. | O*NET |
| 2 | Biochemists and Biophysicists | Study the chemical composition or physical principles of living cells and organisms, their electrical and mechanical energy, and related phenomena. May conduct research to further understanding of the complex chemical combinations and reactions involved in metabolism, reproduction, growth, and heredity. May determine the effects of foods, drugs, serums, hormones, and other substances on tissues and vital processes of living organisms. | O*NET |
| 3 | Computer Hardware Engineers | Research, design, develop, or test computer or computer-related equipment for commercial, industrial, military, or scientific use. May supervise the manufacturing and installation of computer or computer-related equipment and components. | O*NET |
| 4 | Electrical Engineers  | Research, design, develop, test, or supervise the manufacturing and installation of electrical equipment, components, or systems for commercial, industrial, military, or scientific use. | O*NET |
| 5 | Energy Engineers  | Design, develop, or evaluate energy-related projects or programs to reduce energy costs or improve energy efficiency during the designing, building, or remodeling stages of construction. May specialize in electrical systems; heating, ventilation, and air-conditioning (HVAC) systems; green buildings; lighting; air quality; or energy procurement. | O*NET |
| 6 | Molecular and Cellular Biologists | Research and study cellular molecules and organelles to understand cell function and organization. | O*NET |
| 7 | Petroleum Engineers | Devise methods to improve oil and gas extraction and production and determine the need for new or modified tool designs. Oversee drilling and offer technical advice. | O*NET |
| 8 | Physicists  | Conduct research into physical phenomena, develop theories on the basis of observation and experiments, and devise methods to apply physical laws and theories. | O*NET |
| 9 | Remote Sensing Scientists and Technologists  | Apply remote sensing principles and methods to analyze data and solve problems in areas such as natural resource management, urban planning, or homeland security. May develop new sensor systems, analytical techniques, or new applications for existing systems. | O*NET |
| 10 | Statisticians  | Develop or apply mathematical or statistical theory and methods to collect, organize, interpret, and summarize numerical data to provide usable information. May specialize in fields such as bio-statistics, agricultural statistics, business statistics, or economic statistics. Includes mathematical and survey statisticians. | O*NET |
| 11 | Architects, Except Landscape and Naval   | Plan and design structures, such as private residences, office buildings, theaters, factories, and other structural property. | O*NET |
| 12 | Computer Network Architects | Design and implement computer and information networks, such as local area networks (LAN), wide area networks (WAN), intranets, extranets, and other data communications networks. Perform network modeling, analysis, and planning. May also design network and computer security measures. May research and recommend network and data communications hardware and software. | O*NET |
| 13 | Computer Programmers | Create, modify, and test the code, forms, and script that allow computer applications to run. Work from specifications drawn up by software developers or other individuals. May assist software developers by analyzing user needs and designing software solutions. May develop and write computer programs to store, locate, and retrieve specific documents, data, and information. | O*NET |

| Rank | Related Occupations | Duties | *Related By |
|------|---|---|-------------|
| 14 | Computer Science Teachers, Postsecondary | Teach courses in computer science. May specialize in a field of computer science, such as the design and function of computers or operations and research analysis. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research. | O*NET |
| 15 | Computer Systems Analysts 🌟 | Analyze science, engineering, business, and other data processing problems to implement and improve computer systems. Analyze user requirements, procedures, and problems to automate or improve existing systems and review computer system capabilities, workflow, and scheduling limitations. May analyze or recommend commercially available software. | O*NET |
| 16 | Computer Systems Engineers/Architects 🌟 | Design and develop solutions to complex applications problems, system administration issues, or network concerns. Perform systems management and integration functions. | O*NET |
| 17 | Database Administrators 🌟 | Administer, test, and implement computer databases, applying knowledge of database management systems. Coordinate changes to computer databases. May plan, coordinate, and implement security measures to safeguard computer databases. | O*NET |
| 18 | Informatics Nurse Specialists 🌟 | Apply knowledge of nursing and informatics to assist in the design, development, and ongoing modification of computerized health care systems. May educate staff and assist in problem solving to promote the implementation of the health care system. | O*NET |
| 19 | Logistics Engineers 🌱 | Design or analyze operational solutions for projects such as transportation optimization, network modeling, process and methods analysis, cost containment, capacity enhancement, routing and shipment optimization, or information management. | O*NET |
| 20 | Operations Research Analysts 🌟 | Formulate and apply mathematical modeling and other optimizing methods to develop and interpret information that assists management with decision making, policy formulation, or other managerial functions. May collect and analyze data and develop decision support software, service, or products. May develop and supply optimal time, cost, or logistics networks for program evaluation, review, or implementation. | O*NET |
| 21 | Software Developers, Applications 🌟 | Develop, create, and modify general computer applications software or specialized utility programs. Analyze user needs and develop software solutions. Design software or customize software for client use with the aim of optimizing operational efficiency. May analyze and design databases within an application area, working individually or coordinating database development as part of a team. May supervise computer programmers. | O*NET |
| 22 | Software Developers, Systems Software 🌟 🌱 | Research, design, develop, and test operating systems-level software, compilers, and network distribution software for medical, industrial, military, communications, aerospace, business, scientific, and general computing applications. Set operational specifications and formulate and analyze software requirements. May design embedded systems software. Apply principles and techniques of computer science, engineering, and mathematical analysis. | O*NET |

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