

Related Jobs

1. Computer Hardware Engineers

Personality Type:

Investigative–Realistic–Conventional

Earnings: \$88,470

Growth: 10.1%

Annual Openings: 5,000

Most Common Education/Training Level:

Bachelor's degree

Research, design, develop, and 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. Update knowledge and skills to keep up with rapid advancements in computer technology. Provide technical support to designers, marketing and sales departments, suppliers, engineers, and other team members throughout the product development and implementation process. Test and verify hardware and support peripherals to ensure that they meet specifications and requirements, analyzing and recording test data. Monitor functioning of equipment and make necessary modifications to ensure system operates in conformance with specifications. Analyze information to determine, recommend, and plan layout, including type of computers and peripheral equipment modifications. Build, test, and modify product prototypes, using working models or theoretical models constructed using computer simulation. Analyze user needs and recommend appropriate hardware. Direct technicians, engineering designers, or other technical support personnel as needed. Confer with engineering staff and consult specifications to evaluate interface between hardware and software and operational and performance requirements of overall system.

Select hardware and material, assuring compliance with specifications and product requirements. Store, retrieve, and manipulate data for analysis of system capabilities and requirements. Write detailed functional specifications that document the hardware development process and support hardware introduction. Specify power supply requirements and configuration, drawing on system performance expectations and design specifications. Provide training and support to system designers and users. Assemble and modify existing pieces of equipment to meet special needs. Evaluate factors such as reporting formats required, cost constraints, and need for security restrictions to determine hardware configuration. Design and develop computer hardware and support peripherals, including central processing units (CPUs), support logic, microprocessors, custom integrated circuits, and printers and disk drives. Recommend purchase of equipment to control dust, temperature, and humidity in area of system installation.

2. Computer Software Engineers, Applications

Personality Type:

Realistic–Investigative–Conventional

Earnings: \$79,780

Growth: 48.4%

Annual Openings: 54,000

Most Common Education/Training Level:

Bachelor's degree

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