



Software / Computer Systems

Software or computer systems engineers create, maintain and modify computer and software programs such as operating systems, communications software, utility programs, compilers and database handlers. They may also evaluate new programming tools and techniques and analyse current software products.

Software / Computer Systems engineers may perform the following tasks:

- Devise and undertake a regular service program, including support of operating systems
- Analyse problems and develop and implement solutions
- Provide input on matters associated with site preparation and installation of large computer systems
- Install cables for computer networks
- Assist staff in establishing the computer hardware and peripherals required to run IT systems
- Manage projects and supervise staff (in senior computer engineering roles).

Specialisations:

Hardware Design Engineer

A hardware design engineer plans, designs, constructs and maintains the hardware equipment of computers. They may also monitor the development of hardware according to design, and carry out repairs and testing of computer equipment and peripherals.

Network/Systems Engineer

A network/systems engineer designs, installs, analyses and implements computer systems/networks. They may also make sure that the existing network is effective, and work out how it should evolve to meet new requirements of the organisation or business.

Systems Software Programmer

A systems software programmer works with the code used to define the particular operating system and sometimes also with low-level machine language. They write, maintain and update programs that control the overall functioning of computers.

Personal Requirements:

- Able to understand and communicate with a wide variety of people
- Able to work as part of a team
- Logical approach to work
- Self-reliant and able to work independently
- Active interest in maintaining personal technical skills and knowledge
- Able to investigate, identify and solve problems quickly and efficiently
- Enjoy electronics, computers and electro-mechanical equipment
- Good customer service and public contact skills
- Able to make informed decisions on a wide range of complex business and technical issues.

Source: Job Guide 2011