Software and Applications Programmer

Software and applications programmers are the creative minds behind computer programs and apps. They use their creativity and new technologies to develop and test computer program code and maintain programs that control computer functions.

What software and applications programmers do

After a software engineer designs a program, which could be anything from word processing software to a social media platform, software and applications programmers create the program's source code.

Using a variety of computer languages, such as Java and C++, this source code is written so the computer can 'understand' it. The code may be a modification of an existing source or something new. Programmers then test the program to look for errors and rewrite the code until it's running smoothly. They expand and update current programs, and correct bugs.

Programmers also design graphical user interfaces so users can engage with the software through easy point-and-click menu options. Some programmers now also assist software engineers in identifying user needs and designing other computer program functions.

Will I get a job?

Strong growth in this occupation is predicted over the next four years, bringing the current total of 104,000 jobs nationally to more than 119,000 by 2022.

What will I earn?

Over $1,650 median full-time weekly salary (before tax, excluding super).

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You'll like this job if...

You're curious. You're self-disciplined. You're deadline orientated. You pay attention to detail. You thrive under pressure. You're good with technology. You value innovation and seek creative solutions to problems. You have excellent communication skills. You enjoy collaboration. You can concentrate for long periods of time. You have good eyesight.

A day in the life...

Work as a software and applications programmer may involve:

- research, consult, analyse, and evaluate system program needs
- identify technology limitations and deficiencies in existing systems
- test, debug, diagnose, and correct errors in programming language to ensure programs and applications perform well
- write and maintain code to meet system requirements, system designs and technical specifications
- write, update and maintain technical programs, end-user documentation and operational procedures
- provide advice, guidance and expertise in developing proposals and strategies for software design
- evaluate costs for recommended software purchases and upgrades.

VET qualifications

The following government-subsidised qualifications are available in NSW:

Certificate IV in Programming (ICT40515)

- Up to 2 years full-time
- Graduates employed or in further study: 82.6%*

Diploma of Software Development (ICT50715)

- Up to 2 years full-time
- Graduates employed or in further study: 77.6%*

Roles to look for

- Analyst programmer
- Developer
- Programmer
- Software engineer
- Software developer
- Software programmer

Main employing industries

- Professional, scientific and technical services (e.g. computer system design services)
- Financial and insurance services
- Public administration and safety

Other jobs you may like...

- Multimedia specialist and web developer
- Database and systems administrator and ICT security specialist
- Computer network professional

To find out more regarding these related jobs, visit education.nsw.gov.au/job-guides.

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