



South Dakota High Demand & High

Career Cluster: Information Technology



Software Developers and Software Quality Assurance Analysts and Testers

Standard Occupational Codes 15-1256

What They Do

Develop, create, modify and test computer applications that allow people to do specific tasks on a computer or other device. May update software or enhance existing software capabilities. They analyze user needs and develop software that solves problems or makes processes more efficient.

Is This For You?

Work Interests are described in the following categories (compatible with Holland's Model). People who tend to succeed in this career are:

Investigative (Thinkers) — Interested in science and logic. They like to analyze, evaluate and solve problems, and enjoy learning and understanding the causes of events.

Conventional (Organizers) — Detail oriented and organized. They like to analyze data, keep financial records and do research.

Work Values are aspects of work that are satisfying to you. The following work values are generally associated with this career.

Achievement — Results oriented, allow use of strongest abilities and provide feeling of accomplishment.

Working Conditions — Offer job security and good working conditions.

Independence — Allow employees to work on their own and make decisions.

Abilities reflect a person's aptitude to acquire skills and knowledge. The following abilities are important for success in the career:

- Deductive Reasoning
- Inductive Reasoning
- Problem Sensitivity
- Written Comprehension
- Information Ordering
- Near Vision
- Oral Comprehension
- Written Expression

Basic Skills You Need

- Critical Thinking
- Reading Comprehension
- Programming
- Speaking
- Active Listening
- Writing
- Monitoring
- Active Learning
- Complex Problem Solving
- Quality Control Analysis

Education & Training

The minimum of a bachelor's degree in computer science or similar field is recommended for software developers and software quality assurance analysts and testers. Some employers require a master's degree. Demonstrated, strong software development and testing skills are the most important qualification.

South Dakota Employment & Wages

2020 Workers	2030 Workers	Numeric Change	Percent Change	Average Annual Demand for Workers	Annual Median Wage	Annual Average Wage
2,649	3,440	791	29.9%	299	\$78,987	\$85,913

Additional References

Labor Market Information Center

www.dlr.sd.gov/lmic

Career OneStop

www.careeronestop.org

O*Net Online

www.onetonline.org

mySkills myFuture

<https://www.myskillsmyfuture.org/>

Auxiliary aids and services are available upon request to individuals with disabilities. U.S. DOL funded. For details, see dlr.sd.gov/lmic/eta_grant.aspx.

Printed on recycled paper. 

Recommended Levels* for the National Career Readiness Certificate

Applied Math	4
Workplace Documents	5
Graphic Literacy	5

*Using the median skill level.

Where They Work

The South Dakota industries which employ the largest number of software developers, applications are:

- Professional, Scientific and Technical Services
- Self Employment
- Credit Intermediation and Related Activities
- Management of Companies and Enterprises

Provided By

Labor Market Information Center
South Dakota Dept. of Labor and Regulation
605.626.2314

Visit dlr.sd.gov/hotcareers to obtain the most recent workforce data and trends and more resources, including this document. Also available are explanations of the terms used in this occupational profile.



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