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Computer Systems Analysts

Louisiana

Summary of Job Duties

Computer Systems Analysts <u>Video</u> - 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.

Source: This information is based on O*NET™ data. O*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

Detailed Job Description

Computer Systems Analysts Computer systems analysts study an organization's current computer systems and find a solution that is more efficient and effective.

Source: U.S. Department of Labor Bureau of Labor Statistics

Job Zone

The section below shows the job zone information for Computer Systems Analysts. Job Zone Four: Considerable Preparation Needed.

Education	Experience	Training

Education	Experience	Training
Most of these occupations require a four-year bachelor's degree, but some do not.	A considerable amount of work-related skill, knowledge, or experience is needed for these occupations. For example, an accountant must complete four years of college and work for several years in accounting to be considered qualified.	Employees in these occupations usually need several years of work-related experience, onthe-job training, and/or vocational training.

Jobs Available

This section shows the number of job openings and green jobs advertised online in Louisiana for Computer Systems Analysts and for the related occupational group of Computer and Mathematical Occupations on December 8, 2020 (Jobs De-duplication Level <u>2</u>).

Occupation	Job Openings	Green Job Count
Computer Systems Analysts • 🖊	<u>75</u>	1
Computer and Mathematical Occupations	<u>903</u>	<u>17</u>

BRIGHT OUTLOOK NATIONALLY GREEN OCCUPATIONS

Source: Online advertised jobs data

Monthly Job Count

This section shows the number of job openings and green jobs advertised online for Computer Systems Analysts in Louisiana November, 2020 (Jobs De-duplication Level 2).

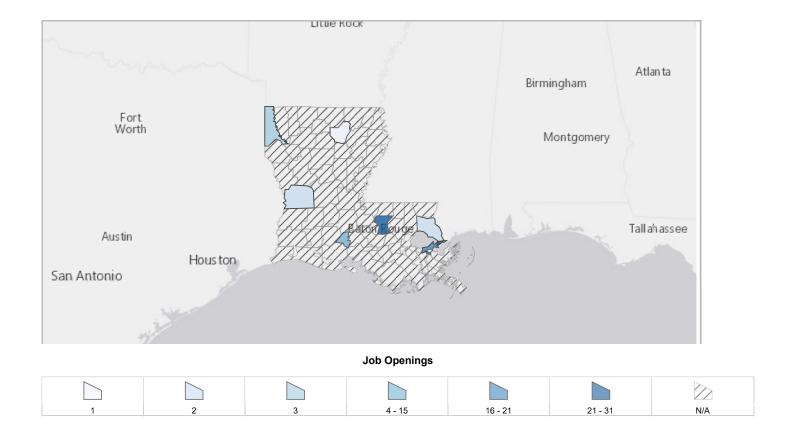
Occupation	Job Openings	Green Job Count
Computer Systems Analysts.	110	2

* BRIGHT OUTLOOK NATIONALLY

Source: Online advertised jobs data

Jobs Area Distribution

This section shows the distribution of number of job openings and green jobs advertised online for Computer Systems Analysts in Louisiana by parishes on December 8, 2020 (Jobs De-duplication Level <u>2</u>).



Job Source: Online advertised jobs data

Jobs in Related Occupations

This section shows the number of job openings and green jobs advertised online in Louisiana for occupations related to Computer Systems Analysts on December 8, 2020 (Jobs De-duplication Level <u>2</u>).

Rank	Occupation	Median Wage	Job Openings	Green Job Count	*Related By
1	Environmental Engineers.	\$104,843	7	<u>6</u>	O*NET
2	Industrial Engineers 🐤 🌶	\$93,185	<u>8</u>	<u>4</u>	O*NET
3	Computer Systems Engineers/Architects	\$62,800	<u>51</u>	<u>3</u>	O*NET
4	Electrical Engineers •	\$91,002	<u>32</u>	<u>3</u>	O*NET
5	Database Administrators	\$80,017	<u>30</u>	<u>2</u>	O*NET
6	Network and Computer Systems Administrators	\$64,569	<u>62</u>	<u>2</u>	O*NET
7	Industrial Safety and Health Engineers 🔊	\$85,523	<u>4</u>	<u>2</u>	O*NET
8	Occupational Health and Safety Specialists	\$71,755	<u>7</u>	<u>2</u>	O*NET
9	Computer and Information Systems Managers	\$104,877	<u>12</u>	<u>1</u>	O*NET

Rank	Occupation	Median Wage	Job Openings	Green Job Count	*Related By
10	Logistics Engineers.	\$72,442	<u>2</u>	1	O*NET
11	Computer Systems Analysts	N/A	<u>75</u>	1	N/A
12	Computer Programmers	\$66,543	<u>87</u>	1	O*NET
13	Software Quality Assurance Engineers and Testers	\$62,800	<u>11</u>	1	O*NET
14	Validation Engineers •	\$81,992	<u>1</u>	1	O*NET
15	Industrial Engineering Technicians	\$82,034	<u>9</u>	1	O*NET
16	Geoscientists, Except Hydrologists and Geographers	\$98,718	1	1	O*NET
17	Computer and Information Research Scientists •	\$90,153	<u>2</u>	0	O*NET
18	Informatics Nurse Specialists >	\$68,543	<u>3</u>	0	O*NET
19	Information Security Analysts >	\$72,516	<u>7</u>	0	O*NET
20	Software Developers, Applications.	\$79,753	<u>50</u>	0	O*NET
21	Software Developers, Systems Software	\$73,552	<u>20</u>	0	O*NET
22	Web Developers	\$56,619	<u>4</u>	0	O*NET
23	Computer Network Architects	\$73,217	<u>6</u>	0	O*NET
24	<u>Statisticians</u> .	\$79,036	<u>2</u>	0	O*NET
25	Landscape Architects	\$52,090	<u>3</u>	0	O*NET
26	Petroleum Engineers	\$128,991	<u>1</u>	0	O*NET
27	<u>Biologists</u>	N/A	<u>2</u>	0	O*NET
28	<u>Epidemiologists</u>	\$51,486	<u>4</u>	0	O*NET
29	<u>Transportation Planners</u>	\$71,423	<u>1</u>	0	O*NET
30	<u>Pathologists</u> •	\$164,463	<u>9</u>	0	O*NET

Job Source: Online advertised jobs data

Wage Source: Labor Market Statistics, Occupational Employment Statistics Program
The median wage is the estimated 50th percentile; 50 percent of workers in an occupation earn less than the

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*Related By: O*NET™ - The <u>Occupational Information Network</u>. O*NET is a registered trademark of the <u>US</u>
<u>Department of Labor/Employment and Training Administration</u>.

Candidates Available

This section shows potential candidates in the workforce system in Louisiana for Computer Systems Analysts and for the related occupational group of Computer and Mathematical Occupations on December 8, 2020.

Occupation Candidates

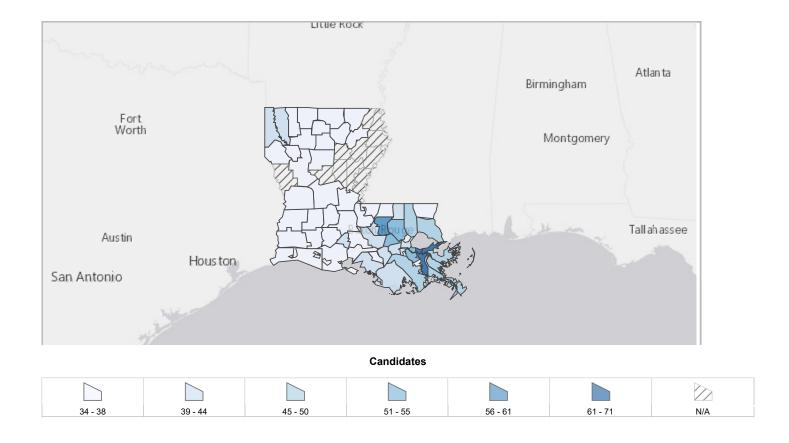
Occupation	Candidates
Computer Systems Analysts • 🖊	139
Computer and Mathematical Occupations	2,259

Source: Individuals with active résumés in the workforce system.

Candidate Area Distribution

This section shows the distribution of potential candidates in the workforce system for Computer Systems Analysts in Louisiana by parishes on December 8, 2020.

Rank	Area Name	Median Wage	Candidates
1	Orleans Parish	\$68,543 state level wages	71
2	Jefferson Parish	\$68,543 state level wages	69
3	East Baton Rouge Parish	\$68,543 state level wages	61
4	<u>Livingston Parish</u>	\$68,543 state level wages	55
5	Ascension Parish	\$68,543 state level wages	52
6	St. Charles Parish	\$68,543 state level wages	51
7	<u>Plaquemines Parish</u>	\$68,543 state level wages	50
8	St. Tammany Parish	\$68,543 state level wages	49
9	St. Bernard Parish	\$68,543 state level wages	47
10	<u>Tangipahoa Parish</u>	\$68,543 state level wages	47



Candidate Source: Individuals with active résumés in the workforce system.

Wage Source: Labor Market Statistics, Occupational Employment Statistics Program

The median wage is the estimated 50th percentile; 50 percent of workers in an occupation earn less than the median wage, and 50 percent earn more than the median wage. Data is from a 2018 survey.

Candidates in Related Occupations

This section shows how many potential candidates in the workforce system were looking for work in Louisiana in occupations related to Computer Systems Analysts on December 8, 2020.

Rank	Occupation	Median Wage	Candidates	*Related By
1	Occupational Health and Safety Specialists	\$71,755	414	O*NET
2	Computer and Information Systems Managers .	\$104,877	288	O*NET
3	Industrial Safety and Health Engineers	\$85,523	171	O*NET
4	Network and Computer Systems Administrators	\$64,569	160	O*NET
5	Computer Systems Analysts	N/A	139	N/A
6	Software Developers, Applications	\$79,753	120	O*NET
7	Electrical Engineers •	\$91,002	111	O*NET
8	Industrial Engineering Technicians	\$82,034	109	O*NET
9	Computer Programmers	\$66,543	91	O*NET

Rank	Occupation	Median Wage	Candidates	*Related By
10	Database Administrators >	\$80,017	91	O*NET
11	Petroleum Engineers	\$128,991	79	O*NET
12	Industrial Engineers 🌣 🌶	\$93,185	55	O*NET
13	Computer Hardware Engineers	\$77,939	46	O*NET
14	Web Developers	\$56,619	42	O*NET
15	Computer Network Architects	\$73,217	42	O*NET
16	Environmental Engineers •	\$104,843	38	O*NET
17	Information Security Analysts >	\$72,516	37	O*NET
18	Software Quality Assurance Engineers and Testers •	\$62,800	37	O*NET
19	Computer and Information Research Scientists	\$90,153	36	O*NET
20	Software Developers, Systems Software •	\$73,552	32	O*NET
21	<u>Biologists</u>	N/A	31	O*NET
22	Geoscientists, Except Hydrologists and Geographers	\$98,718	27	O*NET
23	Landscape Architects •	\$52,090	24	O*NET
24	Computer Systems Engineers/Architects	\$62,800	16	O*NET
25	Geographic Information Systems Technicians.	\$62,800	16	O*NET
26	<u>Statisticians</u> .	\$79,036	8	O*NET
27	<u>Transportation Planners</u>	\$71,423	7	O*NET
28	<u>Epidemiologists</u>	\$51,486	5	O*NET
29	Informatics Nurse Specialists	\$68,543	4	O*NET
30	Pathologists •	\$164,463	4	O*NET
31	Web Administrators	\$62,800	3	O*NET
32	Logistics Engineers •	\$72,442	2	O*NET
33	<u>Validation Engineers</u> <i>■</i>	\$81,992	1	O*NET

BRIGHT OUTLOOK NATIONALLY FREEN OCCUPATIONS

Candidate Source: Individuals with active résumés in the workforce system.

Wage Source: Labor Market Statistics, Occupational Employment Statistics Program

The median wage is the estimated 50th percentile; 50 percent of workers in an occupation earn less than the median wage, and 50 percent earn more than the median wage. Data is from a 2018 survey.

*Related By: O*NET™ - The Occupational Information Network. O*NET is a registered trademark of the US

Department of Labor/Employment and Training Administration.

Jobs and Candidates Available

This section shows the number of job openings and green jobs advertised online, as well as potential candidates in the workforce system in Louisiana for Computer Systems Analysts and for the related occupational group of Computer and Mathematical Occupations on December 8, 2020 (Jobs De-duplication Level <u>2</u>).

Occupation	Job Openings	Green Job Count	Candidates	Candidates per Job
Computer Systems Analysts • 🖊	<u>75</u>	<u>1</u>	139	1.85
Computer and Mathematical Occupations	<u>903</u>	<u>17</u>	2,259	2.50

BRIGHT OUTLOOK NATIONALLY | GREEN OCCUPATIONS

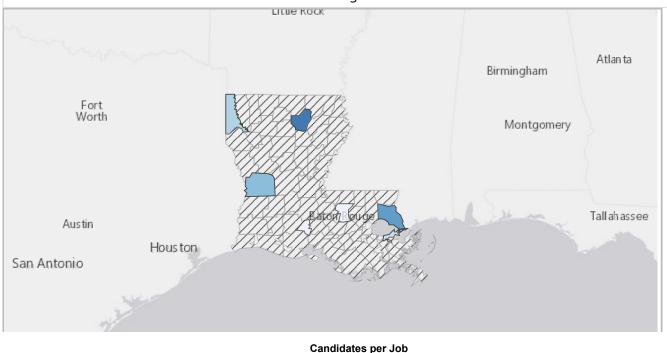
Job Source: Online advertised jobs data Candidate Source: Individuals with active résumés in the workforce system.

Jobs and Candidates Area Distribution

This section shows the distribution of number of job openings and green jobs advertised online, as well as potential candidates in the workforce system for Computer Systems Analysts in Louisiana by parishes on December 8, 2020 (Jobs De-duplication Level $\underline{2}$).

Rank	Area Name	Median Wage	Job Openings	Green Job Count	Candidates	Candidates per Job
1	Ouachita Parish	\$68,543 state level wages	1	0	36	36.00
2	St. Tammany Parish	\$68,543 state level wages	<u>2</u>	0	49	24.50
3	<u>Vernon Parish</u>	\$68,543 state level wages	<u>2</u>	0	33	16.50
4	<u>Caddo Parish</u>	\$68,543 state level wages	<u>3</u>	0	41	13.67
5	<u>Orleans Parish</u>	\$68,543 state level wages	<u>21</u>	<u>1</u>	71	3.38
6	<u>Lafayette Parish</u>	\$68,543 state level wages	<u>15</u>	0	44	2.93
7	East Baton Rouge Parish	\$68,543 state level wages	<u>31</u>	0	61	1.97
8	Acadia Parish	\$68,543 state level wages	0	0	36	N/A

Rank	Area Name	Median Wage	Job Openings	Green Job Count	Candidates	Candidates per Job
9	Allen Parish	\$68,543 state level wages	0	0	34	N/A
10	Ascension Parish	\$68,543 state level wages	0	0	52	N/A



1.98 - 2.93	2.94 - 3.38	3.39 - 13.67	13.68 - 16.50	16.51 - 24.50	24.50 - 36.00	N/A

Job Source: Online advertised jobs data
Candidate Source: Individuals with active résumés in the workforce system.
Wage Source: Labor Market Statistics, Occupational Employment Statistics Program
The median wage is the estimated 50th percentile; 50 percent of workers in an occupation earn less than the median wage, and 50 percent earn more than the median wage. Data is from a 2018 survey.

National Supply and Demand Summary

Computer Systems Analysts

Employment of computer systems analysts is projected to grow 7 percent from 2019 to 2029, faster than the average for all occupations.

As organizations across the economy increase their reliance on information technology (IT), analysts will be hired to design and install new computer systems. Smaller firms with minimal IT requirements will find it more cost effective to contract with cloud service providers, or to industries that employ expert IT service providers, for these workers. This contracting should lead to job growth in both the data processing, hosting, and related services industry and the computer systems design and related services industry.

Additional job growth is expected in healthcare fields. Computer systems analysts will be needed to accommodate the anticipated increase in the use and implementation of electronic health records, e-prescribing, and other forms of healthcare IT.

Job Prospects

An understanding of the specific field an analyst is working in is helpful in getting a position. For example, a hospital may desire an analyst with a background or coursework in health management. Overall, candidates with a background in business may have better prospects because jobs for computer systems analysts often require knowledge of an organization's business needs.

Source: <u>U.S. Department of Labor Bureau of Labor Statistics</u>

Employers by Number of Job Openings

This section shows the employers with the highest number of job openings and green jobs advertised online for Computer Systems Analysts in Louisiana on December 8, 2020 (Jobs De-duplication Level <u>2</u>).

Rank	Employer Name	Job Openings	Green Job Count
1	CACI International Inc	<u>6</u>	0
2	Aptim	<u>4</u>	0
3	CGI Inc.	<u>4</u>	0
4	CGI Federal Inc.	<u>3</u>	0
5	Baton Rouge General	<u>2</u>	0
6	Bernhard MCC, LLC	<u>2</u>	0
7	Hancock Whitney	<u>2</u>	0
8	Ochsner Health System	<u>2</u>	0
9	Pool Corporation	<u>2</u>	0
10	St. Jude Children's Research Hospital Inc.	<u>2</u>	0

Source: Online advertised jobs data

Advertised Job Skills

This section shows the top advertised detailed job skills found in job openings advertised online for Computer Systems Analysts in Louisiana in November, 2020. (Jobs De-duplication Level 1)

Rank	Advertised Detailed Job Skill	Advertised Skill Group	Job Opening Match Count
Naiik	Advertised Detailed Job Skill	Auvertised Skill Group	Job Opening Match Count
1	Problem solving	Basic Skills	<u>35</u>
2	Data analytics	Data Analyst Skills	<u>27</u>
3	Customer service	Customer Service Skills	<u>17</u>
4	Attention to detail	Basic Skills	<u>17</u>
5	Willingness to learn	Basic Skills	<u>11</u>

Rank	Advertised Detailed Job Skill	Advertised Skill Group	Job Opening Match Count
6	Risk management	Risk Analyst Skills	<u>11</u>
7	Providing information	Administrative Assistant Skills	<u>11</u>
8	Application design	Programmer Skills	10
9	Interpersonal skills	Interpersonal Skills	10
10	Critical thinking	Basic Skills	<u>10</u>

Source: Online advertised jobs data

Advertised Tools and Technology

This section shows the top advertised detailed tools and technologies found in job openings advertised online for Computer Systems Analysts in Louisiana in November, 2020. (Jobs De-duplication Level 1)

Rank	Advertised Detailed Tool or Technology	Advertised Tool and Technology Group	Job Opening Match Count
1	Microsoft (MS) Office	Office Suite Software	<u>41</u>
2	Structured query language (SQL)	Database User Interface and Query Software	<u>26</u>
3	Microsoft PowerPoint	Presentation Software	<u>17</u>
4	Atlassian Confluence	Network Conferencing Software	<u>9</u>
5	Extensible markup language (XML)	Enterprise Application Integration Software	7
6	Oracle SQL Developer	Development Environment Software	<u>6</u>
7	Oracle PeopleSoft	Enterprise Resource Planning (ERP) Software	<u>6</u>
8	Directory servers	High End Computer Servers	<u>6</u>
9	Tableau	Business Intelligence and Data Analysis Software	<u>6</u>
10	Oracle SQL	Database Management System Software	6

Source: Online advertised jobs data

Typical Job Skills

This section shows the job skills that are related to Computer Systems Analysts.

Rank	Typical Job Skills	Typical Skill Category
1	Coordinate software or hardware installation	Interacting With Others
2	Monitor computer system performance to ensure proper operation	Information Input
3	Test software performance	Information Input
4	Troubleshoot issues with computer applications or systems	Work Output

Rank	Typical Job Skills	Typical Skill Category
5	Modify software programs to improve performance	Mental Processes
6	Apply information technology to solve business or other applied problems	Mental Processes
7	Write computer programming code	Work Output
8	Collaborate with others to determine design specifications or details	Interacting With Others
9	Analyze data to identify or resolve operational problems	Mental Processes
10	Manage information technology projects or system activities	Interacting With Others
11	Supervise information technology personnel	Interacting With Others
12	Configure computer networks	Work Output
13	Develop testing routines or procedures	Mental Processes
14	Document design or development procedures	Work Output
15	Train others in computer interface or software use	Interacting With Others
16	Evaluate utility of software or hardware technologies	Mental Processes
17	Develop diagrams or flow charts of system operation	Mental Processes
18	Provide technical support for software maintenance or use	Interacting With Others
19	Read documents to gather technical information	Information Input
20	Analyze project data to determine specifications or requirements	Mental Processes
21	Design integrated computer systems	Mental Processes
22	Identify information technology project resource requirements	Mental Processes
23	Collect data about customer needs	Information Input
24	Estimate time or monetary resources needed to complete projects	Information Input
25	Provide recommendations to others about computer hardware	Interacting With Others

Personal Skills

This section shows the personal skills that are most useful for Computer Systems Analysts. Click on a link in the Personal Skills column to view more detailed information.

Personal Skill	Skill Description	Rank by Importance (Out of 100)
Critical Thinking	Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.	72
Active Listening	Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.	72
Reading Comprehension	Understanding written sentences and paragraphs in work related documents.	72

Personal Skill	Skill Description	Rank by Importance (Out of 100)
<u>Speaking</u>	Talking to others to convey information effectively.	69
<u>Systems</u> <u>Analysis</u>	Determining how a system should work and how changes in conditions, operations, and the environment will affect outcomes.	69
Writing	Communicating effectively in writing as appropriate for the needs of the audience.	63
Active Learning	Understanding the implications of new information for both current and future problem-solving and decision-making.	63
Complex Problem Solving	Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.	60
Judgment and Decision Making	Considering the relative costs and benefits of potential actions to choose the most appropriate one.	60
<u>Time</u> <u>Management</u>	Managing one's own time and the time of others.	56
<u>Systems</u> <u>Evaluation</u>	Identifying measures or indicators of system performance and the actions needed to improve or correct performance, relative to the goals of the system.	56
Monitoring	Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.	56
Operation Monitoring	Watching gauges, dials, or other indicators to make sure a machine is working properly.	53
<u>Programming</u>	Writing computer programs for various purposes.	53
Troubleshooting	Determining causes of operating errors and deciding what to do about it.	50
<u>Learning</u> <u>Strategies</u>	Selecting and using training/instructional methods and procedures appropriate for the situation when learning or teaching new things.	50
Mathematics	Using mathematics to solve problems.	50
<u>Operations</u> <u>Analysis</u>	Analyzing needs and product requirements to create a design.	50
Coordination	Adjusting actions in relation to others' actions.	50
Social Perceptiveness	Being aware of others' reactions and understanding why they react as they do.	50
Service Orientation	Actively looking for ways to help people.	47
Instructing	Teaching others how to do something.	47

Personal Skill	Skill Description	Rank by Importance (Out of 100)
<u>Technology</u> <u>Design</u>	Generating or adapting equipment and technology to serve user needs.	47
Quality Control Analysis	Conducting tests and inspections of products, services, or processes to evaluate quality or performance.	47
Management of Personnel Resources	Motivating, developing, and directing people as they work, identifying the best people for the job.	44
<u>Persuasion</u>	Persuading others to change their minds or behavior.	44
<u>Negotiation</u>	Bringing others together and trying to reconcile differences.	38
Equipment Selection	Determining the kind of tools and equipment needed to do a job.	35
<u>Science</u>	Using scientific rules and methods to solve problems.	31
Management of Financial Resources	Determining how money will be spent to get the work done, and accounting for these expenditures.	25
Operation and Control	Controlling operations of equipment or systems.	25
Management of Material Resources	Obtaining and seeing to the appropriate use of equipment, facilities, and materials needed to do certain work.	22
Installation	Installing equipment, machines, wiring, or programs to meet specifications.	19
Equipment Maintenance	Performing routine maintenance on equipment and determining when and what kind of maintenance is needed.	13
<u>Repairing</u>	Repairing machines or systems using the needed tools.	13

Typical Education Requirements

Computer Systems Analysts Computer Systems Analysts usually require at least a Bachelor's degree. However, not all employers may make this a hiring requirement.

Source: This information is based on the BLS Occupational Outlook Handbook (OOH).

Required Level of Education

This section shows the results of a national survey listing the most common required level of education for Computer Systems Analysts.

Rank	Required Level of Education	Percentage of Respondents
1	Bachelor's Degree	33.34%

Rank	Required Level of Education	Percentage of Respondents
2	Associate's Degree (or other 2-year degree)	29.03%
3	Master's Degree	14.21%
4	Post-Baccalaureate Certificate - awarded for completion of an organized program of study; designed for people who have completed a Baccalaureate degree but do not meet the requirements of academic degrees carrying the title of Master.	11.26%
5	Post-Secondary Certificate - awarded for training completed after high school (for example, in agriculture or natural resources, computer services, personal or culinary services, engineering technologies, healthcare, construction trades, mechanic and repair technologies, or precision production)	5.80%
6	Some College Courses	3.85%
7	High School Diploma - or the equivalent (for example, GED)	2.51%

On The Job Training

This section shows the results of a national survey listing the most common lengths of on the job training for Computer Systems Analysts.

Rank	On The Job Training	Percentage of Respondents
1	Over 3 months, up to and including 6 months	36.56%
2	Over 1 year, up to and including 2 years	18.82%
3	Over 1 month, up to and including 3 months	18.77%
4	Anything beyond short demonstration, up to and including 1 month	16.02%
5	Over 6 months, up to and including 1 year	7.12%
6	Over 4 years, up to and including 10 years	2.71%

Source: This information is based on O*NET™ data. O*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

On-Site or In-Plant Training

This section shows the results of a national survey listing the most common lengths of on-site or in-plant training for Computer Systems Analysts.

Rank	On-Site or In-Plant Training	Percentage of Respondents
1	Up to and including 1 month	32.88%
2	Over 1 month, up to and including 3 months	27.77%
3	Over 4 years, up to and including 10 years	10.58%
4	Over 1 year, up to and including 2 years	10.55%

Rank	On-Site or In-Plant Training	Percentage of Respondents
5	Over 3 months, up to and including 6 months	9.63%
6	None	4.92%
7	Over 6 months, up to and including 1 year	3.67%

Education Level of Jobs and Candidates

This section shows the minimum level of education requested by employers on job openings and green jobs advertised online, as well as the educational attainment of potential candidates in the workforce system that are looking for jobs as Computer Systems Analysts in Louisiana on December 8, 2020. There were 55 job openings advertised online that did not specify a minimum education requirement (Jobs De-duplication Level <u>2</u>).

Rank	Education Level	Job Openings	Percentage of Job Openings	Green Job Count	Percentage of Green Jobs	Potential Candidates	Percentage of Potential Candidates
1	No Minimum Education Requirement	<u>1</u>	1.33%	0	0.00%	0	N/A
2	High School Diploma or Equivalent	<u>5</u>	6.67%	1	50.00%	19	13.67%
3	1 Year of College or a Technical or Vocational School	0	N/A	0	N/A	9	6.47%
4	2 Years of College or a Technical or Vocational School	0	N/A	0	N/A	8	5.76%
5	3 Years of College or a Technical or Vocational School	0	N/A	0	N/A	5	3.60%
6	Vocational School Certificate	<u>1</u>	1.33%	0	0.00%	7	5.04%
7	Associate's Degree	<u>2</u>	2.67%	0	0.00%	20	14.39%
8	Bachelor's Degree	<u>11</u>	14.67%	0	0.00%	53	38.13%
9	Master's Degree	0	N/A	0	N/A	17	12.23%
10	Doctorate Degree	0	N/A	0	N/A	1	0.72%
11	Not Specified	<u>55</u>	73.33%	<u>1</u>	50.00%	0	N/A

Job Source: Online advertised jobs data

Candidate Source: Individuals with active résumés in the workforce system.

Education Training Programs

This section shows the Education Training Programs for Computer Systems Analysts in Louisiana.

Provider Name	Program Name	Location	Tuition	Length	WIOA Eligible
Baton Rouge Community College	<u>CompTIA Linux+</u> An industry-recognized certificate or certification	Baton Rouge, LA	\$1,295	75 Hours	•
Baton Rouge Community College	<u>CompTIA Linux+</u> An industry-recognized certificate or certification	Baton Rouge, LA	\$1,295	75 Hours	•
Baton Rouge Community College	<u>CompTIA Linux+</u> An industry-recognized certificate or certification	New Roads, LA	\$1,295	75 Hours	•
Baton Rouge Community College	<u>CompTIA Linux+</u> An industry-recognized certificate or certification	Baton Rouge, LA	\$1,295	75 Hours	•
Baton Rouge Community College	<u>CompTIA Linux+</u> An industry-recognized certificate or certification	Central, LA	\$1,295	75 Hours	•
Baton Rouge Community College	<u>CompTIA Linux+</u> An industry-recognized certificate or certification	Jackson, LA	\$1,295	75 Hours	•
Baton Rouge Community College	<u>CompTIA Linux+</u> An industry-recognized certificate or certification	Port Allen, LA	\$1,295	75 Hours	•
Baton Rouge Community College	<u>CompTIA Linux+</u> An industry-recognized certificate or certification	Baton Rouge, LA	\$1,295	75 Hours	•
Baton Rouge School of Computers	<u>Computer Information</u> <u>Systems</u> An associate degree	BATON ROUGE, LA	\$32,708	14 Months	•
Baton Rouge School of Computers	Micro-Computer Lit An associate degree, Employment	BATON ROUGE, LA	\$16,354	7 Months	②

Source: U.S. Department of Commerce, Bureau of the Census, Midyear Estimates

Advertised Job Certifications

This section shows the top advertised certification groups found in job openings advertised online for Computer Systems Analysts in Louisiana in November, 2020. (Jobs De-duplication Level 1)

Rank	Advertised Certification Group	Advertised Certification Sub-Category	Job Opening Match Count

Rank	Advertised Certification Group	Advertised Certification Sub-Category	Job Opening Match Count
1	Project Management Institute (PMI) Certifications	Business Planning	<u>6</u>
2	Scrum Alliance Certifications	Software	<u>3</u>
3	Cisco Associate Certifications	Computer Network	<u>3</u>
4	Scrum.org Certifications	Software	2
5	Aviat Networks Certifications	Utilities Install and Repair	2
6	American Heart Association (AHA) CPR & First Aid Certifications	Nursing	<u>1</u>
7	Nursing Credentials and Certifications	Nursing	1
8	National Board for Respiratory Care (NBRC)	Medical Treatment and Therapy	<u>1</u>
9	American Institute of CPAs (AICPA) Certifications	Financial Specialists	<u>1</u>
10	Commercial Drivers License (CDL)	Ground Transportation	1

Source: Online advertised jobs data

Training Program Completers

There is no data available for Computer Systems Analysts in Louisiana.

National Education, Training, Licensing and Qualifications

Computer Systems Analysts

A bachelor's degree in a computer or information science field is common, although not always a requirement. Some firms hire analysts with business or liberal arts degrees who have skills in information technology or computer programming.

Education

Most computer systems analysts have a bachelor's degree in a computer-related field. Because these analysts also are heavily involved in the business side of a company, it may be helpful to take business courses or major in management information systems.

Some employers prefer applicants who have a master's degree in business administration (MBA) with a concentration in information systems. For more technically complex jobs, a master's degree in computer science may be more appropriate.

Although many computer systems analysts have technical degrees, such a degree is not always a requirement. Many analysts have liberal arts degrees and have gained programming or technical expertise elsewhere.

Many systems analysts continue to take classes throughout their careers so that they can learn about new and innovative technologies. Technological advances come so rapidly in the computer field that continual study is necessary to remain competitive.

Systems analysts must understand the business field they are working in. For example, a hospital may want an analyst with a thorough understanding of health plans and programs such as Medicare and Medicaid, and an analyst working for a bank may need to understand finance. Having knowledge of their industry helps systems analysts communicate with managers to determine the role of the information technology (IT) systems in an organization.

Advancement

With experience, systems analysts can advance to project manager and lead a team of analysts. Some can eventually become IT directors or chief technology officers. For more information, see the profile on computer and information systems managers

Important Qualities

Analytical skills

Analysts must interpret complex information from various sources and decide the best way to move forward on a project. They must also figure out how changes may affect the project.

Communication skills

Analysts work as a go-between with management and the IT department and must explain complex issues in a way that both will understand.

Creativity.

Because analysts are tasked with finding innovative solutions to computer problems, an ability to "think outside the box" is important.

Source: <u>U.S. Department of Labor Bureau of Labor Statistics</u>

Typical Work Experience Requirements

Computer Systems Analysts Employees in these occupations usually need several years of work-related experience, on-the-job training, and/or vocational training.

Source: This information is based on O*NET™ data. O*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

Related Work Experience

This section shows the results of a national survey listing the most common related work experience for Computer Systems Analysts.

Rank	Related Work Experience	Percentage of Respondents
1	Over 1 year, up to and including 2 years	27.60%
2	Over 4 years, up to and including 6 years	21.95%
3	Over 2 years, up to and including 4 years	14.97%

Rank	Related Work Experience	Percentage of Respondents
4	Over 10 years	14.15%
5	Over 8 years, up to and including 10 years	10.35%
6	Over 6 years, up to and including 8 years	7.49%
7	Over 6 months, up to and including 1 year	3.48%

Work Experience of Jobs and Candidates

This section shows the minimum required work experience requested by employers on job openings and green jobs advertised online, as well as the experience level of potential candidates in the workforce system that are looking for jobs as Computer Systems Analysts in Louisiana on December 8, 2020. There were 61 job openings advertised online that did not specify a minimum experience requirement (Jobs De-duplication Level <u>2</u>).

Rank	Experience	Job Openings	Percentage of Job Openings	Green Job Count	Percentage of Green Jobs	Potential Candidates	Percentage of Potential Candidates
1	Not Specified	61	81.33%	1	100.00%	0	N/A
2	Entry Level	5	6.67%	0	0.00%	0	N/A
3	Less than 1 year	0	N/A	0	N/A	4	2.88%
4	1 Year to 2 Years	4	5.33%	0	0.00%	1	0.72%
5	2 Years to 5 Years	5	6.67%	0	0.00%	7	5.04%
6	5 Years to 10 Years	0	N/A	0	N/A	15	10.79%
7	More than 10 Years	0	N/A	0	N/A	112	80.58%

Job Source: Online advertised jobs data

Candidate Source: Individuals with active résumés in the workforce system.

Current Job Order Wage Information

The employer has NOT indicated a salary range for this job. The information below shows statistics on typical salaries in the local labor market for Computer Systems Analysts. This data is NOT an indication of what this employer is willing to pay for this job.

Employment Wage Statistics

This section shows the estimated employment wage statistics for individuals in Louisiana employed for Computer Systems Analysts in 2018.

Rate Type / Statistical Type	Q1	Entry level	Median	Experienced	Q3
Annual wage or salary	\$53,319	\$46,555	\$68,543	\$85,560	\$87,847
Hourly wage	\$25.63	\$22.38	\$32.95	\$41.13	\$42.23

Source: Labor Market Statistics, Occupational Employment Statistics Program

The median wage is the estimated 50th percentile; 50 percent of workers in an occupation earn less than the median wage, and 50 percent earn more than the median wage. Entry level and Experienced wage rates represent the means of the lower 1/3 and upper 2/3 of the wage distribution, respectively. Data is from an annual survey.

Wage Rates on Advertised Jobs

This section shows a statistical breakdown of available wage data on the <u>75</u> job openings advertised online for Computer Systems Analysts in Louisiana that posted a salary on December 8, 2020.

Rate Type / Statistical Type	Entry Level	Median	Experienced
Annual wage or salary	\$63,221	\$86,559	\$106,232
Hourly Wage	\$30.39	\$41.61	\$51.07

Source: Online advertised jobs data

Note: This information is based on actual job orders and is not based on a statistically valid labor market survey.

Hourly wage rate calculations in this section assume a 40 hour work week.

Desired Salary of Available Candidates

This section shows the desired salary of potential candidates in the workforce system that are looking for jobs as Computer Systems Analysts in Louisiana on December 8, 2020.

Rank	Desired Salary	Potential Candidates	Percentage of Potential Candidates
1	Not Specified	25	17.99%
2	\$20,000 - \$34,999	22	15.83%
3	\$35,000 - \$49,999	36	25.90%
4	\$50,000 - \$64,999	25	17.99%
5	\$65,000 - \$79,999	17	12.23%
6	\$80,000 - \$94,999	7	5.04%
7	\$95,000 or more	7	5.04%

Source: Individuals with active résumés in the workforce system.

Wage Rates Area Distribution

There is no data available for Computer Systems Analysts in Louisiana.

Wage Rates in Related Occupations

This section shows a comparison of 2018 median annual rates for occupations that are in the same occupational family as Computer Systems Analysts for Louisiana.

Rank	Occupation	Median	*Related By
1	<u>Pathologists</u>	\$164,463	O*NET

Rank	Occupation	Median	*Related By
2	Petroleum Engineers	\$128,991	O*NET
3	Computer and Information Systems Managers *	\$104,877	O*NET
4	Environmental Engineers /	\$104,843	O*NET
5	Geoscientists, Except Hydrologists and Geographers	\$98,718	O*NET
6	Industrial Engineers 🌣 🎤	\$93,185	O*NET
7	Electrical Engineers •	\$91,002	O*NET
8	Computer and Information Research Scientists	\$90,153	O*NET
9	Industrial Safety and Health Engineers	\$85,523	O*NET
10	Industrial Engineering Technicians	\$82,034	O*NET
11	Validation Engineers •	\$81,992	O*NET
12	Database Administrators	\$80,017	O*NET
13	Software Developers, Applications .	\$79,753	O*NET
14	<u>Statisticians</u> .	\$79,036	O*NET
15	Computer Hardware Engineers	\$77,939	O*NET
16	Software Developers, Systems Software	\$73,552	O*NET
17	Computer Network Architects	\$73,217	O*NET
18	Information Security Analysts >	\$72,516	O*NET
19	Logistics Engineers .	\$72,442	O*NET
20	Occupational Health and Safety Specialists	\$71,755	O*NET
21	<u>Transportation Planners</u>	\$71,423	O*NET
22	Informatics Nurse Specialists .	\$68,543	O*NET
23	Computer Programmers	\$66,543	O*NET
24	Network and Computer Systems Administrators	\$64,569	O*NET
25	Software Quality Assurance Engineers and Testers	\$62,800	O*NET
26	Computer Systems Engineers/Architects	\$62,800	O*NET
27	Web Administrators	\$62,800	O*NET
28	Geographic Information Systems Technicians > =	\$62,800	O*NET
29	Web Developers*	\$56,619	O*NET
30	Landscape Architects	\$52,090	O*NET
31	<u>Epidemiologists</u>	\$51,486	O*NET

BRIGHT OUTLOOK NATIONALLY FREEN OCCUPATIONS

Source: Labor Market Statistics, Occupational Employment Statistics Program

The median wage is the estimated 50th percentile; 50 percent of workers in an occupation earn less than the median wage, and 50 percent earn more than the median wage. Entry level and Experienced wage rates represent the means of the lower 1/3 and upper 2/3 of the wage distribution, respectively. Data is from an annual survey.

*Related By: O*NET™ - The Occupational Information Network. O*NET is a registered trademark of the US Department of Labor/Employment and Training Administration.

Wage Rates by Industry

There is no data available for Computer Systems Analysts in Louisiana.

National Earnings Data Summary

Computer Systems Analysts

The median annual wage for computer systems analysts was \$90,920 in May 2019. The median wage is the wage at which half the workers in an occupation earned more than that amount and half earned less. The lowest 10 percent earned less than \$55,180, and the highest 10 percent earned more than \$147,670.

In May 2019, the median annual wages for computer systems analysts in the top industries in which they worked were as follows:

Information	\$93,710
Computer systems design and related services	93,280
Management of companies and enterprises	93,220
Finance and insurance	92,000
Government	80,570

Most systems analysts work full time. Some work more than 40 hours per week.

Source: U.S. Department of Labor Bureau of Labor Statistics

Occupational Employment & Future Employment Outlook

This section shows the long term employment projections for Computer Systems Analysts in Louisiana from 2016-2026.

Occupation	2016 Estimated Employment	2026 Projected Employment	Total 2016- 2026 Employment Change	2016-2026 Annual Avg. Percent Change
Computer Systems Analysts	1,971	2,415	444	2.05%
Total All	2,034,986	2,203,144	168,158	0.80%

Source: Occupational Employment Projections

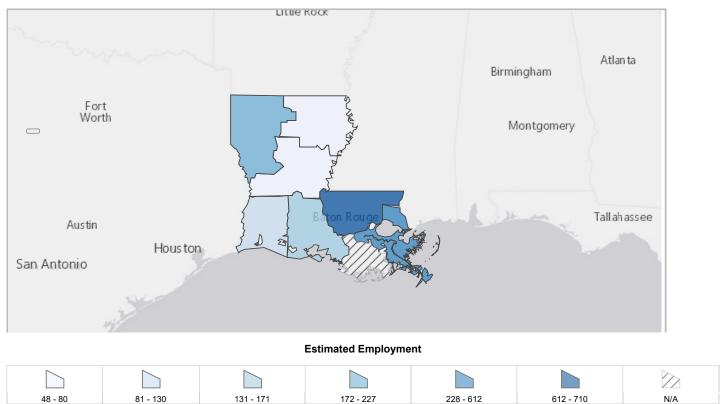
Employment Data Area Distribution

This section shows the distribution of the estimated employment for Computer Systems Analysts in Louisiana by regional labor market area.

Rank	Area	2016 Estimated Employment
1	<u> 2nd Regional Labor Market Area, Baton Rouge</u>	710
2	1st Regional Labor Market Area, New Orleans	612
3	7th Regional Labor Market Area, Shreveport	227

Rank	Area	2016 Estimated Employment
4	4th Regional Labor Market Area, Lafayette	171
5	5th Regional Labor Market Area, Lake Charles	130
6	8th Regional Labor Market Area, Monroe	80
7	6th Regional Labor Market Area, Alexandria	47
*	3rd Regional Labor Market Area, Houma	Confidential

^{*} Rank is suppressed for confidential data.



Source: Labor Market Statistics, Occupational Employment Projections Program

Employment Data in Related Occupations

This section shows the 2016 Estimated Employment in Louisiana for occupations related to Computer Systems Analysts.

Rank	Occupation	2016 Estimated Employment	*Related By
1	<u>Pathologists</u>	6,352	O*NET
2	Validation Engineers •	3,698	O*NET
3	Network and Computer Systems Administrators	2,953	O*NET
4	Computer Systems Engineers/Architects	2,873	O*NET

Rank	Occupation	2016 Estimated Employment	*Related By
5	Geographic Information Systems Technicians > >	2,873	O*NET
6	Software Quality Assurance Engineers and Testers	2,873	O*NET
7	Web Administrators >	2,873	O*NET
8	Computer Programmers	2,505	O*NET
9	Industrial Engineers * =	2,104	O*NET
10	Informatics Nurse Specialists .	1,971	O*NET
11	Computer and Information Systems Managers •	1,930	O*NET
12	Petroleum Engineers	1,645	O*NET
13	Electrical Engineers •	1,557	O*NET
14	Software Developers, Applications .	1,411	O*NET
15	Occupational Health and Safety Specialists •	1,317	O*NET
16	Software Developers, Systems Software	1,203	O*NET
17	Geoscientists, Except Hydrologists and Geographers	1,060	O*NET
18	Logistics Engineers •	795	O*NET
19	Information Security Analysts >	757	O*NET
20	Industrial Safety and Health Engineers •	646	O*NET
21	Web Developers.	560	O*NET
22	Database Administrators >	508	O*NET
23	Environmental Engineers •	481	O*NET
24	Industrial Engineering Technicians	404	O*NET
25	Computer Network Architects	246	O*NET
26	Computer Hardware Engineers	206	O*NET
27	<u>Transportation Planners</u>	146	O*NET
28	<u>Statisticians</u>	53	O*NET
29	Computer and Information Research Scientists	40	O*NET
*	<u>Epidemiologists</u>	Confidential	O*NET
*	<u>Landscape Architects</u> <i>■</i>	Confidential	O*NET

Source: Occupational Employment Projections

*Related By: O*NET™ - The <u>Occupational Information Network</u>. O*NET is a registered trademark of the <u>US</u>
<u>Department of Labor/Employment and Training Administration</u>.

Projected Annual Openings

This section shows the long term projected annual openings for Computer Systems Analysts in Louisiana from 2016 to 2026.

^{*} Rank is suppressed for confidential data.

Occupation	Total Annual Average Openings	Annual Average Openings Due to Growth	•
Computer Systems Analysts	N/A	N/A	N/A
Computer and Mathematical	N/A	N/A	N/A

Source: Labor Market Statistics, Occupational Employment Projections Program

Projected Annual Openings Area Distribution

This section shows the distribution of the total annual average openings for Computer Systems Analysts in Louisiana by regional labor market area from 2016 to 2026.

Rank	Area	Total Annual Average Openings
1	1st Regional Labor Market Area, New Orleans	N/A
2	2nd Regional Labor Market Area, Baton Rouge	N/A
3	4th Regional Labor Market Area, Lafayette	N/A
4	5th Regional Labor Market Area, Lake Charles	N/A
5	6th Regional Labor Market Area, Alexandria	N/A
6	7th Regional Labor Market Area, Shreveport	N/A
7	8th Regional Labor Market Area, Monroe	N/A
*	3rd Regional Labor Market Area, Houma	Confidential

^{*} Rank is suppressed for confidential data.

There is no total annual average openings data available for Computer Systems Analysts in Louisiana.

Source: Labor Market Statistics, Occupational Employment Projections Program

Projected Annual Openings in Related Occupations

This section shows the projected total annual average openings in Louisiana for occupations related to Computer Systems Analysts from 2016 to 2026.

Rank	Occupation	Total Annual Average Openings	*Related By
1	Computer and Information Research Scientists	N/A	O*NET
2	Computer and Information Systems Managers .	N/A	O*NET
3	Computer Hardware Engineers	N/A	O*NET
4	Computer Network Architects	N/A	O*NET
5	Computer Programmers	N/A	O*NET
6	Computer Systems Engineers/Architects	N/A	O*NET
7	Database Administrators	N/A	O*NET

Rank	Occupation	Total Annual Average Openings	*Related By
8	Electrical Engineers •	N/A	O*NET
9	Environmental Engineers •	N/A	O*NET
10	Geographic Information Systems Technicians > =	N/A	O*NET
11	Geoscientists, Except Hydrologists and Geographers.	N/A	O*NET
12	Industrial Engineering Technicians	N/A	O*NET
13	Industrial Engineers > =	N/A	O*NET
14	Industrial Safety and Health Engineers	N/A	O*NET
15	Informatics Nurse Specialists >	N/A	O*NET
16	Information Security Analysts .	N/A	O*NET
17	Logistics Engineers •	N/A	O*NET
18	Network and Computer Systems Administrators	N/A	O*NET
19	Occupational Health and Safety Specialists -	N/A	O*NET
20	<u>Pathologists</u>	N/A	O*NET
21	Petroleum Engineers	N/A	O*NET
22	Software Developers, Applications	N/A	O*NET
23	Software Developers, Systems Software •	N/A	O*NET
24	Software Quality Assurance Engineers and Testers	N/A	O*NET
25	<u>Statisticians</u>	N/A	O*NET
26	<u>Transportation Planners</u>	N/A	O*NET
27	Validation Engineers •	N/A	O*NET
28	Web Administrators >	N/A	O*NET
29	Web Developers	N/A	O*NET
*	<u>Epidemiologists</u>	Confidential	O*NET
*	Landscape Architects •	Confidential	O*NET

BRIGHT OUTLOOK NATIONALLY FREEN OCCUPATIONS

Source: Occupational Employment Projections

Industries by Employment

This section shows the industries that employed the highest number of Computer Systems Analysts in Louisiana in 2016.

Rank	Industry Title	Estimated Employment	Percent of Total Employment
1	Professional, Scientific, and Technical Services	582	29.53%

^{*} Rank is suppressed for confidential data.

Rank	Industry Title	Estimated Employment	Percent of Total Employment
2	Internet Service Providers, Web Search Portals, and Data Processing Services	215	10.91%
3	Management of Companies and Enterprises	127	6.44%
4	Educational Services	97	4.92%
5	Administrative and Support Services	90	4.57%
6	<u>Hospitals</u>	61	3.09%
7	Insurance Carriers and Related Activities	52	2.64%
8	Self-Employed and Unpaid Family Workers, Primary Job	43	2.18%
9	Chemical Manufacturing	37	1.88%
10	Merchant Wholesalers, Durable Goods	34	1.73%

Source: Louisiana Workforce Commission, Occupational Projections Program

Work Activities

This section shows the most common work activities required by Computer Systems Analysts in order of importance. Click on a link in the Work Activity column to view more detailed information.

Work Activity	Work Activity Description	Rank by Importance (Out of 100)
Interacting With Computers	Using computers and computer systems (including hardware and software) to program, write software, set up functions, enter data, or process information.	91
Getting Information	Observing, receiving, and otherwise obtaining information from all relevant sources.	89
Processing Information	Compiling, coding, categorizing, calculating, tabulating, auditing, or verifying information or data.	82
Communicating with Supervisors, Peers, or Subordinates	Providing information to supervisors, co-workers, and subordinates by telephone, in written form, email, or in person.	81
Making Decisions and Solving Problems	Analyzing information and evaluating results to choose the best solution and solve problems.	78
Analyzing Data or Information	Identifying the underlying principles, reasons, or facts of information by breaking down information or data into separate parts.	78
<u>Updating and Using</u> <u>Relevant Knowledge</u>	Keeping up-to-date technically and applying new knowledge to your job.	76
Thinking Creatively	Developing, designing, or creating new applications, ideas, relationships, systems, or products, including artistic contributions.	74

Work Activity	Work Activity Description	Rank by Importance (Out of 100)
Identifying Objects, Actions, and Events	Identifying information by categorizing, estimating, recognizing differences or similarities, and detecting changes in circumstances or events.	71
Organizing, Planning, and Prioritizing Work	Developing specific goals and plans to prioritize, organize, and accomplish your work.	69
Interpreting the Meaning of Information for Others	Translating or explaining what information means and how it can be used.	67
Establishing and Maintaining Interpersonal Relationships	Developing constructive and cooperative working relationships with others, and maintaining them over time.	65
Monitor Processes, Materials, or Surroundings	Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.	63
Provide Consultation and Advice to Others	Providing guidance and expert advice to management or other groups on technical, systems-, or process-related topics.	57
Coordinating the Work and Activities of Others	Getting members of a group to work together to accomplish tasks.	56
Judging the Qualities of Things, Services, or People	Assessing the value, importance, or quality of things or people.	56
<u>Developing Objectives</u> <u>and Strategies</u>	Establishing long-range objectives and specifying the strategies and actions to achieve them.	55
Documenting/Recording Information	Entering, transcribing, recording, storing, or maintaining information in written or electronic/magnetic form.	52
<u>Developing and Building</u> <u>Teams</u>	Encouraging and building mutual trust, respect, and cooperation among team members.	52
Training and Teaching Others	Identifying the educational needs of others, developing formal educational or training programs or classes, and teaching or instructing others.	52
Coaching and Developing Others	Identifying the developmental needs of others and coaching, mentoring, or otherwise helping others to improve their knowledge or skills.	51
Estimating the Quantifiable Characteristics of Products, Events, or Information	Estimating sizes, distances, and quantities; or determining time, costs, resources, or materials needed to perform a work activity.	45

Work Activity	Work Activity Description	Rank by Importance (Out of 100)
Scheduling Work and Activities	Scheduling events, programs, and activities, as well as the work of others.	44
Evaluating Information to Determine Compliance with Standards	Using relevant information and individual judgment to determine whether events or processes comply with laws, regulations, or standards.	43
Communicating with Persons Outside Organization	Communicating with people outside the organization, representing the organization to customers, the public, government, and other external sources. This information can be exchanged in person, in writing, or by telephone or e-mail.	42
Performing Administrative Activities	Performing day-to-day administrative tasks such as maintaining information files and processing paperwork.	32
Selling or Influencing Others	Convincing others to buy merchandise/goods or to otherwise change their minds or actions.	30
Guiding, Directing, and Motivating Subordinates	Providing guidance and direction to subordinates, including setting performance standards and monitoring performance.	27
Resolving Conflicts and Negotiating with Others	Handling complaints, settling disputes, and resolving grievances and conflicts, or otherwise negotiating with others.	26
Monitoring and Controlling Resources	Monitoring and controlling resources and overseeing the spending of money.	23
Repairing and Maintaining Electronic Equipment	Servicing, repairing, calibrating, regulating, fine- tuning, or testing machines, devices, and equipment that operate primarily on the basis of electrical or electronic (not mechanical) principles.	23
Assisting and Caring for Others	Providing personal assistance, medical attention, emotional support, or other personal care to others such as coworkers, customers, or patients.	23
Handling and Moving Objects	Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.	21

Tasks

This section shows the most common tasks required by Computer Systems Analysts in order of importance. Click on a link in the Task column to view more detailed information.

Tasks	Task Description	Rank by Importance (Out of 100)
Test, maintain, and monitor computer programs and systems, including coordinating the installation of computer programs and systems.	Core	76
Troubleshoot program and system malfunctions to restore normal functioning.	Core	75
Expand or modify system to serve new purposes or improve work flow.	Core	73
Use the computer in the analysis and solution of business problems, such as development of integrated production and inventory control and cost analysis systems.	Core	73
Consult with management to ensure agreement on system principles.	Core	70
Confer with clients regarding the nature of the information processing or computation needs a computer program is to address.	Core	69
Coordinate and link the computer systems within an organization to increase compatibility so that information can be shared.	Core	68
Train staff and users to work with computer systems and programs.	Core	68
<u>Develop, document, and revise system design procedures, test procedures, and quality standards.</u>	Core	68
Assess the usefulness of pre-developed application packages and adapt them to a user environment.	Core	66
Define the goals of the system and devise flow charts and diagrams describing logical operational steps of programs.	Core	66
Provide staff and users with assistance solving computer- related problems, such as malfunctions and program problems.	Core	65
<u>Use object-oriented programming languages, as well as client</u> and server applications development processes and multimedia and Internet technology.	Supplemental	71
Review and analyze computer printouts and performance indicators to locate code problems, and correct errors by correcting codes.	Supplemental	70
Supervise computer programmers or other systems analysts or serve as project leaders for particular systems projects.	Supplemental	69
Read manuals, periodicals, and technical reports to learn how to develop programs that meet staff and user requirements.	Supplemental	62
Determine computer software or hardware needed to set up or alter system.	Supplemental	60

Tasks	Task Description	Rank by Importance (Out of 100)
Analyze information processing or computation needs and plan and design computer systems, using techniques such as structured analysis, data modeling, and information engineering.	Supplemental	60
Interview or survey workers, observe job performance, or perform the job to determine what information is processed and how it is processed.	Supplemental	59
Prepare cost-benefit and return-on-investment analyses to aid in decisions on system implementation.	Supplemental	58
Specify inputs accessed by the system and plan the distribution and use of the results.	Supplemental	58
Recommend new equipment or software packages.	Supplemental	52

National Working Conditions

Computer Systems Analysts

Computer systems analysts held about 632,400 jobs in 2019. The largest employers of computer systems analysts were as follows:

Computer systems design and related services 28% Finance and insurance 14

Management of companies and enterprises 9

Information 7

Government 6

Computer systems analysts can work directly for an organization or as contractors, often working for an information technology firm. The projects that computer systems analysts work on usually require them to collaborate and coordinate with others.

Analysts who work on contracts in the computer systems design and related services industry may move from one project to the next as they complete work for clients.

Work Schedules

Most systems analysts work full time. Some work more than 40 hours per week.

Source: <u>U.S. Department of Labor Bureau of Labor Statistics</u>

Typical Work Conditions

This section shows the most common work conditions required by Computer Systems Analysts in order of importance.

Work Condition	Work Condition Description	Rank by Importance (Out of 100)
Electronic Mail	How often do you use electronic mail in this job?	100
Telephone	How often do you have telephone conversations in this job?	97
Indoors, Environmentally Controlled	How often does this job require working indoors in environmentally controlled conditions?	94
Work With Work Group or Team	How important is it to work with others in a group or team in this job?	89
Spend Time Sitting	How much does this job require sitting?	87
Importance of Being Exact or Accurate	How important is being very exact or highly accurate in performing this job?	87
Face-to-Face Discussions	How often do you have to have face-to-face discussions with individuals or teams in this job?	85
Contact With Others	How much does this job require the worker to be in contact with others (face-to-face, by telephone, or otherwise) in order to perform it?	80
Importance of Repeating Same Tasks	How important is repeating the same physical activities (e.g., key entry) or mental activities (e.g., checking entries in a ledger) over and over, without stopping, to performing this job?	79
Structured versus Unstructured Work	To what extent is this job structured for the worker, rather than allowing the worker to determine tasks, priorities, and goals?	78
Coordinate or Lead Others	How important is it to coordinate or lead others in accomplishing work activities in this job?	76
Time Pressure	How often does this job require the worker to meet strict deadlines?	74
Spend Time Using Your Hands to Handle, Control, or Feel Objects, Tools, or Controls	How much does this job require using your hands to handle, control, or feel objects, tools or controls?	71
Impact of Decisions on Co-workers or Company Results	What results do your decisions usually have on other people or the image or reputation or financial resources of your employer?	68
Spend Time Making Repetitive Motions	How much does this job require making repetitive motions?	68
Freedom to Make Decisions	How much decision making freedom, without supervision, does the job offer?	67
Responsibility for Outcomes and Results	How responsible is the worker for work outcomes and results of other workers?	67

Work Condition	Work Condition Description	Rank by Importance (Out of 100)
Frequency of Decision Making	How frequently is the worker required to make decisions that affect other people, the financial resources, and/or the image and reputation of the organization?	57
Deal With External Customers	How important is it to work with external customers or the public in this job?	57
Sounds, Noise Levels Are Distracting or Uncomfortable	How often does this job require working exposed to sounds and noise levels that are distracting or uncomfortable?	54
Level of Competition	To what extent does this job require the worker to compete or to be aware of competitive pressures?	54
Physical Proximity	To what extent does this job require the worker to perform job tasks in close physical proximity to other people?	48
Letters and Memos	How often does the job require written letters and memos?	47
Frequency of Conflict Situations	How often are there conflict situations the employee has to face in this job?	46
Degree of Automation	How automated is the job?	46
Consequence of Error	How serious would the result usually be if the worker made a mistake that was not readily correctable?	44
Deal With Unpleasant or Angry People	How frequently does the worker have to deal with unpleasant, angry, or discourteous individuals as part of the job requirements?	43
Public Speaking	How often do you have to perform public speaking in this job?	35
Responsible for Others' Health and Safety	How much responsibility is there for the health and safety of others in this job?	32
Exposed to Hazardous Conditions	How often does this job require exposure to hazardous conditions?	26
Spend Time Standing	How much does this job require standing?	21

Work Values and Needs

This section shows the information on the current work values for your selected occupation.

Work Value	Work Value Description	Rank By Extent (Out of 100)

Work Value	Work Value Description	Rank By Extent (Out of 100)
Working Conditions	Occupations that satisfy this work value offer job security and good working conditions. Corresponding needs are Activity, Compensation, Independence, Security, Variety and Working Conditions.	70
Achievement	Occupations that satisfy this work value are results oriented and allow employees to use their strongest abilities, giving them a feeling of accomplishment. Corresponding needs are Ability Utilization and Achievement.	67
Recognition	Occupations that satisfy this work value offer advancement, potential for leadership, and are often considered prestigious. Corresponding needs are Advancement, Authority, Recognition and Social Status.	67
Independence	Occupations that satisfy this work value allow employees to work on their own and make decisions. Corresponding needs are Creativity, Responsibility and Autonomy.	67
Support	Occupations that satisfy this work value offer supportive management that stands behind employees. Corresponding needs are Company Policies, Supervision: Human Relations and Supervision: Technical.	56
Relationships	Occupations that satisfy this work value allow employees to provide service to others and work with co-workers in a friendly non-competitive environment. Corresponding needs are Co-workers, Moral Values and Social Service.	45

Typical Tools

This section shows common tools used by Computer Systems Analysts.

Detailed Tool	Tool Group
Desktop computers	Desktop computers
Mainframe computers	Mainframe computers
Notebook computers	Notebook computers
Personal digital assistants PDA	Personal digital assistant PDAs or organizers

Source: This information is based on O*NET™ data. O*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

Typical Technology

This section shows common technology used by Computer Systems Analysts.

Detailed Technology	Technology Group
Access management software	Access software

Detailed Technology	Technology Group
Citrix	Access software
Fund accounting software	Accounting software
Tax software	Accounting software
Cisco Systems CiscoWorks	Administration software
Element management software	Administration software
Hierarchical simulation program with integrated circuit emphasis HSPICE	Analytical or scientific software
IBM SPSS Statistics	Analytical or scientific software
Minitab	Analytical or scientific software
SAS	Analytical or scientific software
StataCorp Stata	Analytical or scientific software
Structure prediction software	Analytical or scientific software
The MathWorks MATLAB	Analytical or scientific software
Docker	Application server software
GitHub	Application server software
Oracle Application Server	Application server software
Oracle WebLogic Server	Application server software
Red Hat WildFly	Application server software
Spring Boot	Application server software
System and data disaster recovery software	Backup or archival software
Veritas NetBackup	Backup or archival software
Business intelligence system software	Business intelligence and data analysis software
IBM Cognos Impromptu	Business intelligence and data analysis software
MicroStrategy	Business intelligence and data analysis software
Oracle Business Intelligence Enterprise Edition	Business intelligence and data analysis software
Qlik Tech QlikView	Business intelligence and data analysis software
Tableau	Business intelligence and data analysis software
IBM Domino	Communications server software
Time sharing option TSO software	Compiler and decompiler software
Computer aided design and drafting CADD software	Computer aided design CAD software
Dassault Systemes CATIA	Computer aided design CAD software
Electronic design automation EDA software	Computer aided design CAD software
OrCAD Capture	Computer aided design CAD software
SpectraQuest	Computer aided design CAD software
Application management software	Configuration management software

Detailed Technology	Technology Group
Automated installation software	Configuration management software
Chef	Configuration management software
HyperSpace	Configuration management software
IBM Rational ClearCase	Configuration management software
InstallShield	Configuration management software
Patch and update management software	Configuration management software
Perforce Helix software	Configuration management software
Puppet	Configuration management software
Software distribution software	Configuration management software
Systems and application deployment and migration software	Configuration management software
VMWare	Configuration management software
Wise Solutions Wise for Windows Installer	Configuration management software
Atlassian JIRA	Content workflow software
Blackbaud The Raiser's Edge	Customer relationship management CRM software
Oracle Eloqua	Customer relationship management CRM software
Salesforce software	Customer relationship management CRM software
Apache Cassandra	Data base management system software
Apache Hadoop	Data base management system software
Apache Hive	Data base management system software
Apache Pig	Data base management system software
Apache Solr	Data base management system software
Elasticsearch	Data base management system software
MongoDB	Data base management system software
MySQL	Data base management system software
NoSQL	Data base management system software
Oracle DBMS	Data base management system software
Oracle PL/SQL	Data base management system software
Relational database management software	Data base management system software
SAP Adaptive Server Enterprise	Data base management system software
Teradata Database	Data base management system software
Microsoft SQL Server Reporting Services	Data base reporting software
Oracle Business Intelligence Suite	Data base reporting software
SAP Crystal Reports	Data base reporting software
Amazon Elastic Compute Cloud EC2	Data base user interface and query software

Technology Group Detailed Technology Amazon Redshift Data base user interface and query software Amazon Web Services AWS software Data base user interface and query software Data base user interface and query software Blackboard Data entry software Data base user interface and query software FileMaker Pro Data base user interface and query software IBM DB2 Data base user interface and guery software Data base user interface and query software Microsoft Access Microsoft SQL Server Data base user interface and query software Oracle JDBC Data base user interface and query software Oracle software Data base user interface and query software SAP BusinessObjects Desktop Intelligence Data base user interface and query software Software asset management SAM software Data base user interface and query software Structured query language SQL Data base user interface and query software Data base user interface and query software Transact-SQL Data conversion software Data conversion software Google Analytics Data mining software CrossTec NetOp Remote Control Desktop communications software Remote control software Desktop communications software Stac Software ReachOut Desktop communications software Symantec pcAnywhere Desktop communications software Microsoft Publisher Desktop publishing software Ada Development environment software Adobe Systems Adobe ActionScript Development environment software Development environment software Apache Ant Apache Kafka Development environment software Apache Maven Development environment software C Development environment software Common business oriented language COBOL Development environment software **Eclipse IDE** Development environment software Embarcadero JBuilder Development environment software Formula translation/translator FORTRAN Development environment software Go Development environment software IBM Rational ClearQuest Development environment software

Development environment software

Development environment software

IBM Rational Rose XDE Developer

Integrated development environment IDE software

Detailed Technology Technology Group Development environment software Microsoft .NET Framework Development environment software Microsoft Azure Development environment software Microsoft PowerShell Development environment software Microsoft Visual Basic Development environment software Microsoft Visual Basic for Applications VBA Development environment software Microsoft Visual Basic Scripting Edition VBScript Development environment software Microsoft Visual Studio Development environment software National Instruments LabVIEW Development environment software Oracle Java 2 Platform Enterprise Edition J2EE Development environment software Ruby Development environment software Symantec Visual Cafe Development environment software Verilog Development environment software Adobe Systems Adobe Acrobat Document management software **IBM Notes** Electronic mail software Electronic mail software Microsoft Exchange Server Electronic mail software Microsoft Outlook Atlassian Bamboo Enterprise application integration software Extensible markup language XML Enterprise application integration software IBM InfoSphere DataStage Enterprise application integration software IBM WebSphere Enterprise application integration software Microsoft SQL Server Integration Services SSIS Enterprise application integration software Oracle Fusion Middleware Enterprise application integration software **SAP Netweaver** Enterprise application integration software SAP Netweaver BW Enterprise application integration software WebFOCUS Enterprise application integration software Microsoft Dynamics Enterprise resource planning ERP software Microsoft Dynamics GP Enterprise resource planning ERP software NetSuite ERP Enterprise resource planning ERP software **Oracle Fusion Applications** Enterprise resource planning ERP software Oracle Hyperion Enterprise resource planning ERP software Enterprise resource planning ERP software Oracle JD Edwards EnterpriseOne Oracle PeopleSoft Enterprise resource planning ERP software **Oracle PeopleSoft Financials** Enterprise resource planning ERP software

Enterprise resource planning ERP software

SAP

Detailed Technology Group

SAP Business Objects Enterprise resource planning ERP software

IBM Power Systems software Enterprise system management software

Splunk Enterprise Enterprise system management software

Ansible software Expert system software

Apache Subversion SVN File versioning software

Git File versioning software

Version control software File versioning software

Cost estimation software Financial analysis software

Delphi Technology Financial analysis software

Oracle E-Business Suite Financials Financial analysis software

Salesforce Visualforce Graphical user interface development software

Adobe Systems Adobe Fireworks Graphics or photo imaging software

Adobe Systems Adobe Flash Graphics or photo imaging software

Adobe Systems Adobe Illustrator Graphics or photo imaging software

Adobe Systems Adobe Photoshop Graphics or photo imaging software

Microsoft Visio Graphics or photo imaging software

Help desk software Helpdesk or call center software

ADP Workforce Now Human resources software

Human resource management software HRMS Human resources software

Oracle Taleo Human resources software

Supervisory control and data acquisition SCADA

software

LexisNexis Information retrieval or search software

Active directory software Internet directory services software

Voice over internet protocol VoiP system software

Internet protocol IP multimedia subsystem software

Industrial control software

ESRI ArcGIS software Map creation software

Geographic information system GIS software

Map creation software

Epic Systems Medical software

Healthcare common procedure coding system HCPCS Medical software

Medical condition coding software Medical software

Medical procedure coding software Medical software

MEDITECH software Medical software

CA Erwin Data Modeler Metadata management software

Informatica Corporation PowerCenter Metadata management software

Oracle Master Data Management MDM Suite Metadata management software

Detailed Technology Technology Group SAP Master Data Management MDM Metadata management software Nagios Network monitoring software Network intrusion prevention systems NIPS Network monitoring software Snort Network monitoring software Wireshark Network monitoring software Network security or virtual private network VPN Virtual private networking VPN software management software Advanced business application programming ABAP Object or component oriented development software Apache Groovy Object or component oriented development software C# Object or component oriented development software C++ Object or component oriented development software Component object model COM software Object or component oriented development software Distributed component object model DCOM software Object or component oriented development software Eiffel Object or component oriented development software jQuery Object or component oriented development software Jupyter Notebook Object or component oriented development software Microsoft ActiveX Object or component oriented development software Microsoft Visual Basic.NET Object or component oriented development software Microsoft Visual C# .NET Object or component oriented development software Objective C Object or component oriented development software Oracle Java Object or component oriented development software Practical extraction and reporting language Perl Object or component oriented development software Python Object or component oriented development software R Object or component oriented development software Rapide Object or component oriented development software Scala Object or component oriented development software Smalltalk Object or component oriented development software Swift Object or component oriented development software Hibernate ORM Object oriented data base management software Microsoft Visual FoxPro Object oriented data base management software PostgreSQL Object oriented data base management software Microsoft Office Office suite software Apple macOS Operating system software Bash Operating system software Hewlett Packard HP-UX Operating system software

Detailed Technology	Technology Group
Job control language JCL	Operating system software
KornShell	Operating system software
Linux	Operating system software
Microsoft Windows	Operating system software
Microsoft Windows Server	Operating system software
Oracle Solaris	Operating system software
Red Hat Enterprise Linux	Operating system software
Shell script	Operating system software
Ubuntu	Operating system software
UNIX	Operating system software
UNIX Shell	Operating system software
Diagramming software	Pattern design software
Flow chart software	Pattern design software
Omni Group OmniGraffle	Pattern design software
Apache HTTP Server	Portal server software
Microsoft PowerPoint	Presentation software
Compatibility testing software	Program testing software
Defect tracking software	Program testing software
Dynamic analysis software	Program testing software
Functional testing software	Program testing software
Hewlett Packard LoadRunner	Program testing software
IBM Rational PurifyPlus	Program testing software
Integration testing software	Program testing software
Interoperability testing software	Program testing software
JUnit	Program testing software
Load testing software	Program testing software
Migration testing software	Program testing software
Mutation testing software	Program testing software
Personal computer diagnostic software	Program testing software
Recovery testing software	Program testing software
Regression testing software	Program testing software
Security testing software	Program testing software
Selenium	Program testing software
Static analysis software	Program testing software
Stress testing software	Program testing software

Detailed Technology	Technology Group
System testing software	Program testing software
Test design software	Program testing software
Test implementation software	Program testing software
Unit testing software	Program testing software
Usability testing software	Program testing software
Confluence	Project management software
Microsoft Project	Project management software
Microsoft SharePoint	Project management software
Oracle Primavera Enterprise Project Portfolio Management	Project management software
AcmeStudio	Requirements analysis and system architecture software
Architecture description language ADL	Requirements analysis and system architecture software
Popkin System Architect	Requirements analysis and system architecture software
Requirements management software	Requirements analysis and system architecture software
Unified modeling language UML	Requirements analysis and system architecture software
Marketo Marketing Automation	Sales and marketing software
Microsoft Excel	Spreadsheet software
McAfee	Transaction security and virus protection software
Symantec	Transaction security and virus protection software
Virus scanning software	Transaction security and virus protection software
Customer information control system CICS	Transaction server software
Microsoft Internet Information Service IIS	Transaction server software
Sun Microsystems Sun ONE	Transaction server software
Web server software	Transaction server software
YouTube	Video creation and editing software
Adobe Systems Adobe Dreamweaver	Web page creation and editing software
Adobe ColdFusion	Web platform development software
Adobe Systems Adobe Flex	Web platform development software
AJAX	Web platform development software
Apache Struts	Web platform development software
Apache Tomcat	Web platform development software
Backbone.js	Web platform development software

Detailed Technology	Technology Group
Cascading Style Sheets CSS	Web platform development software
Django	Web platform development software
Drupal	Web platform development software
Dynamic hypertext markup language DHTML	Web platform development software
Enterprise JavaBeans	Web platform development software
Ext JS	Web platform development software
Extensible HyperText Markup Language XHTML	Web platform development software
Google AngularJS	Web platform development software
Hypertext markup language HTML	Web platform development software
JavaScript	Web platform development software
JavaScript Object Notation JSON	Web platform development software
LAMP Stack	Web platform development software
Microsoft Active Server Pages ASP	Web platform development software
Microsoft ASP.NET	Web platform development software
Microsoft ASP.NET Core MVC	Web platform development software
Node.js	Web platform development software
Oracle JavaServer Pages JSP	Web platform development software
PHP: Hypertext Preprocessor	Web platform development software
React	Web platform development software
Ruby on Rails	Web platform development software
Spring Framework	Web platform development software
Google Docs	Word processing software
Microsoft Word	Word processing software

Licensing Information

There is no data available for Computer Systems Analysts in Louisiana.

Typical Knowledge Categories

This section shows the most common knowledge categories required by Computer Systems Analysts in order of importance. Click on a link in the Knowledge Category column to view more detailed information.

Knowledge
Category

Knowledge Category	Knowledge Category Description	Rank by Importance (Out of 100)
Computers and Electronics	Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.	83
English Language	Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.	74
Customer and Personal Service	Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.	53
<u>Mathematics</u>	Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.	53
Administration and Management	Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.	50
<u>Clerical</u>	Knowledge of administrative and clerical procedures and systems such as word processing, managing files and records, stenography and transcription, designing forms, and other office procedures and terminology.	38
<u>Telecommunications</u>	Knowledge of transmission, broadcasting, switching, control, and operation of telecommunications systems.	38
Engineering and Technology	Knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.	37
Communications and Media	Knowledge of media production, communication, and dissemination techniques and methods. This includes alternative ways to inform and entertain via written, oral, and visual media.	29
<u>Design</u>	Knowledge of design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models.	25
<u>Law and</u> <u>Government</u>	Knowledge of laws, legal codes, court procedures, precedents, government regulations, executive orders, agency rules, and the democratic political process.	22
Economics and Accounting	Knowledge of economic and accounting principles and practices, the financial markets, banking and the analysis and reporting of financial data.	21

Knowledge Category	Knowledge Category Description	Rank by Importance (Out of 100)
Production and Processing	Knowledge of raw materials, production processes, quality control, costs, and other techniques for maximizing the effective manufacture and distribution of goods.	21

Typical Work Abilities Required

This section shows the results of a national survey listing the most common work abilities required by Computer Systems Analysts in order of importance. Click on a link in the Work Ability column to view more detailed information.

Work Ability	Work Ability Description	Rank by Importance (Out of 100)
Oral Comprehension	The ability to listen to and understand information and ideas presented through spoken words and sentences.	75
<u>Deductive</u> <u>Reasoning</u>	The ability to apply general rules to specific problems to produce answers that make sense.	72
<u>Problem</u> <u>Sensitivity</u>	The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.	72
Written Comprehension	The ability to read and understand information and ideas presented in writing.	72
Inductive Reasoning	The ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events).	69
Information Ordering	The ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations).	69
Near Vision	The ability to see details at close range (within a few feet of the observer).	69
Oral Expression	The ability to communicate information and ideas in speaking so others will understand.	69
Fluency of Ideas	The ability to come up with a number of ideas about a topic (the number of ideas is important, not their quality, correctness, or creativity).	66
Speech Recognition	The ability to identify and understand the speech of another person.	66
Speech Clarity	The ability to speak clearly so others can understand you.	63
Written Expression	The ability to communicate information and ideas in writing so others will understand.	60

Work Ability	Work Ability Description	Rank by Importance (Out of 100)
<u>Category</u> <u>Flexibility</u>	The ability to generate or use different sets of rules for combining or grouping things in different ways.	56
Flexibility of Closure	The ability to identify or detect a known pattern (a figure, object, word, or sound) that is hidden in other distracting material.	53
Mathematical Reasoning	The ability to choose the right mathematical methods or formulas to solve a problem.	53
Number Facility	The ability to add, subtract, multiply, or divide quickly and correctly.	53
Speed of Closure	The ability to quickly make sense of, combine, and organize information into meaningful patterns.	53
Visualization	The ability to imagine how something will look after it is moved around or when its parts are moved or rearranged.	53
<u>Originality</u>	The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem.	50
Perceptual Speed	The ability to quickly and accurately compare similarities and differences among sets of letters, numbers, objects, pictures, or patterns. The things to be compared may be presented at the same time or one after the other. This ability also includes comparing a presented object with a remembered object.	50
Selective Attention	The ability to concentrate on a task over a period of time without being distracted.	50
Finger Dexterity	The ability to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects.	47
Far Vision	The ability to see details at a distance.	44
Memorization	The ability to remember information such as words, numbers, pictures, and procedures.	41
Time Sharing	The ability to shift back and forth between two or more activities or sources of information (such as speech, sounds, touch, or other sources).	38
Visual Color Discrimination	The ability to match or detect differences between colors, including shades of color and brightness.	38
<u>Auditory</u> <u>Attention</u>	The ability to focus on a single source of sound in the presence of other distracting sounds.	25
<u>Hearing</u> <u>Sensitivity</u>	The ability to detect or tell the differences between sounds that vary in pitch and loudness.	25
Arm-Hand Steadiness	The ability to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position.	22

Work Ability	Work Ability Description	Rank by Importance (Out of 100)
Control Precision	The ability to quickly and repeatedly adjust the controls of a machine or a vehicle to exact positions.	22
Manual Dexterity	The ability to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.	19
Depth Perception	The ability to judge which of several objects is closer or farther away from you, or to judge the distance between you and an object.	16
Trunk Strength	The ability to use your abdominal and lower back muscles to support part of the body repeatedly or continuously over time without 'giving out' or fatiguing.	13
Wrist-Finger Speed	The ability to make fast, simple, repeated movements of the fingers, hands, and wrists.	10
<u>Dynamic</u> <u>Strength</u>	The ability to exert muscle force repeatedly or continuously over time. This involves muscular endurance and resistance to muscle fatigue.	6

Typical Work Interests

This section shows the results of a national survey listing the most common work interests for Computer Systems Analysts in order of importance.

Work Interest	Work Interest Description	Rank by Importance (Out of 100)
Investigative	Investigative occupations frequently involve working with ideas, and require an extensive amount of thinking. These occupations can involve searching for facts and figuring out problems mentally.	89
Conventional	Conventional occupations frequently involve following set procedures and routines. These occupations can include working with data and details more than with ideas. Usually there is a clear line of authority to follow.	89
Realistic	Realistic occupations frequently involve work activities that include practical, hands-on problems and solutions. They often deal with plants, animals, and real-world materials like wood, tools, and machinery. Many of the occupations require working outside, and do not involve a lot of paperwork or working closely with others.	56
Enterprising	Enterprising occupations frequently involve starting up and carrying out projects. These occupations can involve leading people and making many decisions. Sometimes they require risk taking and often deal with business.	39

Typical Work Styles

This section shows the most common work styles required by Computer Systems Analysts in order of importance. Click on a link in the Work Style column to view more detailed information.

Work Style	Work Style Description	Rank by Importance (Out of 100)
Analytical Thinking	Job requires analyzing information and using logic to address work-related issues and problems.	93
Attention to Detail	Job requires being careful about detail and thorough in completing work tasks.	89
<u>Dependability</u>	Job requires being reliable, responsible, and dependable, and fulfilling obligations.	88
Adaptability/Flexibility	Job requires being open to change (positive or negative) and to considerable variety in the workplace.	88
<u>Integrity</u>	Job requires being honest and ethical.	88
Cooperation	Job requires being pleasant with others on the job and displaying a good-natured, cooperative attitude.	83
Stress Tolerance	Job requires accepting criticism and dealing calmly and effectively with high stress situations.	82
Self Control	Job requires maintaining composure, keeping emotions in check, controlling anger, and avoiding aggressive behavior, even in very difficult situations.	78
<u>Persistence</u>	Job requires persistence in the face of obstacles.	77
<u>Initiative</u>	Job requires a willingness to take on responsibilities and challenges.	76
Achievement/Effort	Job requires establishing and maintaining personally challenging achievement goals and exerting effort toward mastering tasks.	69
Innovation	Job requires creativity and alternative thinking to develop new ideas for and answers to work-related problems.	68
<u>Independence</u>	Job requires developing one's own ways of doing things, guiding oneself with little or no supervision, and depending on oneself to get things done.	68
Concern for Others	Job requires being sensitive to others' needs and feelings and being understanding and helpful on the job.	64
<u>Leadership</u>	Job requires a willingness to lead, take charge, and offer opinions and direction.	62

Work Style	Work Style Description	Rank by Importance (Out of 100)
Social Orientation	Job requires preferring to work with others rather than alone, and being personally connected with others on the job.	62

Related Occupations

This section shows a list of occupations related to Computer Systems Analysts. Click an occupation title to see more information about that occupation.

Rank	Related Occupations	Duties	*Related By
1	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
2	<u>Computer</u> <u>Programmers</u>	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
3	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
4	<u>Database</u> <u>Administrators</u> ◆	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
5	Geographic Information Systems Technicians → ■	Assist scientists, technologists, or related professionals in building, maintaining, modifying, or using geographic information systems (GIS) databases. May also perform some custom application development or provide user support.	O*NET
6	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
7	Information Security Analysts	Plan, implement, upgrade, or monitor security measures for the protection of computer networks and information. May ensure appropriate security controls are in place that will safeguard digital files and vital electronic infrastructure. May respond to computer security breaches and viruses.	O*NET

Rank	Related Occupations	Duties	*Related By
8	Network and Computer Systems Administrators	Install, configure, and support an organization's local area network (LAN), wide area network (WAN), and Internet systems or a segment of a network system. Monitor network to ensure network availability to all system users and may perform necessary maintenance to support network availability. May monitor and test Web site performance to ensure Web sites operate correctly and without interruption. May assist in network modeling, analysis, planning, and coordination between network and data communications hardware and software. May supervise computer user support specialists and computer network support specialists. May administer network security measures.	O*NET
9	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
10	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
11	Software Quality Assurance Engineers and Testers	Develop and execute software test plans in order to identify software problems and their causes.	O*NET
12	Web Administrators	Manage web environment design, deployment, development and maintenance activities. Perform testing and quality assurance of web sites and web applications.	O*NET
13	Web Developers.❖	Design, create, and modify Web sites. Analyze user needs to implement Web site content, graphics, performance, and capacity. May integrate Web sites with other computer applications. May convert written, graphic, audio, and video components to compatible Web formats by using software designed to facilitate the creation of Web and multimedia content.	O*NET
14	<u>Biologists</u>	Research or study basic principles of plant and animal life, such as origin, relationship, development, anatomy, and functions.	O*NET
15	Computer and Information Research Scientists	Conduct research into fundamental computer and information science as theorists, designers, or inventors. Develop solutions to problems in the field of computer hardware and software.	O*NET
16	Computer and Information Systems Managers	Plan, direct, or coordinate activities in such fields as electronic data processing, information systems, systems analysis, and computer programming.	O*NET

Rank	Related Occupations	Duties	*Related By
17	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
18	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
19	Environmental Engineers	Research, design, plan, or perform engineering duties in the prevention, control, and remediation of environmental hazards using various engineering disciplines. Work may include waste treatment, site remediation, or pollution control technology.	O*NET
20	<u>Epidemiologists</u>	Investigate and describe the determinants and distribution of disease, disability, or health outcomes. May develop the means for prevention and control.	O*NET
21	Geoscientists, Except Hydrologists and Geographers	Study the composition, structure, and other physical aspects of the Earth. May use geological, physics, and mathematics knowledge in exploration for oil, gas, minerals, or underground water; or in waste disposal, land reclamation, or other environmental problems. May study the Earth's internal composition, atmospheres, oceans, and its magnetic, electrical, and gravitational forces. Includes mineralogists, crystallographers, paleontologists, stratigraphers, geodesists, and seismologists.	O*NET
22	Industrial Engineering Technicians	Apply engineering theory and principles to problems of industrial layout or manufacturing production, usually under the direction of engineering staff. May perform time and motion studies on worker operations in a variety of industries for purposes such as establishing standard production rates or improving efficiency.	O*NET
23	Industrial Engineers	Design, develop, test, and evaluate integrated systems for managing industrial production processes, including human work factors, quality control, inventory control, logistics and material flow, cost analysis, and production coordination.	O*NET
24	Industrial Safety and Health Engineers	Plan, implement, and coordinate safety programs, requiring application of engineering principles and technology, to prevent or correct unsafe environmental working conditions.	O*NET
25	<u>Landscape</u> <u>Architects</u> <i>▶</i>	Plan and design land areas for projects such as parks and other recreational facilities, airports, highways, hospitals, schools, land subdivisions, and commercial, industrial, and residential sites.	O*NET
26	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

Rank	Related Occupations	Duties	*Related By
27	Occupational Health and Safety Specialists	Review, evaluate, and analyze work environments and design programs and procedures to control, eliminate, and prevent disease or injury caused by chemical, physical, and biological agents or ergonomic factors. May conduct inspections and enforce adherence to laws and regulations governing the health and safety of individuals. May be employed in the public or private sector. Includes environmental protection officers.	O*NET
28	<u>Pathologists</u>	Diagnose presence and stage of diseases using laboratory techniques and patient specimens. Study the nature, cause, and development of diseases. May perform autopsies.	O*NET
29	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
30	<u>Statisticians</u>	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
31	<u>Transportation</u> <u>Planners</u> <i>■</i>	Prepare studies for proposed transportation projects. Gather, compile, and analyze data. Study the use and operation of transportation systems. Develop transportation models or simulations.	O*NET
32	Validation Engineers	Design or plan protocols for equipment or processes to produce products meeting internal and external purity, safety, and quality requirements.	O*NET

BRIGHT OUTLOOK NATIONALLY | GREEN OCCUPATIONS

Source: **Related By: O*NET™ - The <u>Occupational Information Network</u>. O*NET is a registered trademark of the <u>US</u>

<u>Department of Labor/Employment and Training Administration</u>.

Career Ladder

This section shows the top 10 occupations and the corresponding individuals in the workforce system who were previously Computer Systems Analysts and have changed their occupation over the last 5 years.

Occupation Title	Number of Individuals that Moved	Percentage of Individuals that Moved
Computer User Support Specialists >	31	21.99%
Computer Network Support Specialists	18	12.77%
Software Developers, Applications .	17	12.06%
Retail Salespersons.	14	9.93%
Network and Computer Systems Administrators	13	9.22%
Information Technology Project Managers	13	9.22%

Occupation Title	Number of Individuals that Moved	Percentage of Individuals that Moved
Computer and Information Systems Managers	12	8.51%
Business Intelligence Analysts	8	5.67%
Customer Service Representatives • •	8	5.67%
Computer Programmers	7	4.96%

Source: Individuals with active résumés in the workforce system.

