



Computer Programming Occupations

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Prepared by Los Angeles/Orange Counties Center of Excellence for Labor Market Research

Current and Future Employment

In Los Angeles and Orange Counties, computer programming occupations are expected to increase by 7% between 2015 and 2020. In 2015, there were a total of 67,363 computer programming jobs in the region. By 2020, it is estimated that there will be 72,110 jobs, an increase of 4,747.

Table 1 – Computer Programming Jobs

SOC	Description	2015 Jobs	2020 Jobs	2015-2020 Change	2015-2020 % Change	Annual Openings	Median Hourly Earnings
15-1132	Software Developers, Applications	26,708	29,433	2,725	10%	959	\$48.48
15-1133	Software Developers, Systems Software	17,771	18,620	849	5%	439	\$55.71
15-1131	Computer Programmers	13,854	13,744	(110)	(1%)	417	\$40.79
15-1134	Web Developers	9,030	10,313	1,283	14%	384	\$29.27
Total/Average		67,363	72,110	4,747	7%	2,200	\$46.26

Source: EMSI Employment Data – 2016.2

Job Postings, Top Employers and Top Titles

In 2015, there were a total of 78,515 job postings for computer programming occupations in Los Angeles and Orange Counties. Two-thirds of these jobs postings were for application software developers, and over one-fourth of these jobs postings were for web developers.

Table 2 – Job Postings by Occupation (n=78,515)

SOC Code	Occupation	Job Postings, Full Year 2015
15-1132	Software Developers, Applications	51,850
15-1134	Web Developers	21,046
15-1131	Computer Programmers	4,839
15-1133	Software Developers, Systems Software	780

Source: Burning Glass

Table 3 lists the top ten employers hiring computer programming professionals. At the top of the list were Oracle (493 postings), Accenture (326), and UnitedHealth Group (303). Table 3 lists the top ten hiring employers.

Table 3 – Top Employers (n=29,862)

Employer	Job Postings, Full Year 2015
Oracle	493
Accenture	326
UnitedHealth Group	303
Anthem Blue Cross	285
Amazon.com	213
Disney	202
Northrop Grumman	187
SMCI	182
Odesus Incorporated	161
Calance US	160

Source: Burning Glass

Table 4 lists the top titles for computer programming occupations in Los Angeles and Orange County. Over 10% of the top computer programming titles were for software development engineers (8,642 postings). Table 4 lists the top fifteen computer programming titles.

Table 4 – Top Titles (n=78,515)

Titles	Job Postings, Full Year 2015
Software Development Engineer	8,642
Java Software Developer	3,787
Web Developer	3,663
.Net Developer	3,440
Front End Developer	2,652
Software Developer	1,961
PHP Developer	1,935
IOS Developer	1,738
Applications Developer	1,460
Java Software Engineer	1,181
Android Developer	1,171
Programmer/Analyst	1,165
Web Designer	1,136
Senior .Net Developer	1,046
Applications Engineer	847

Source: Burning Glass

Top Certifications and Skills Required

Most job postings (97%) did not list the necessary certifications for job applicants. For the job postings that did post certifications, the most requested certification was security clearance (567 postings). The top ten certifications are listed below in Table 5.

Table 5 – Top Certifications (n=2,716)

Certifications	Number of Job Postings
Security Clearance	567
Project Management Certification (e.g. PMP)	258
CISCO Certified Network Professional (CCNP)	213
CISCO Certified Network Associate	188
CISCO Certified Interwork Expert (CCIE)	123
Certified Information Systems Security Professional (CISSP)	122
Microsoft Certified Solution Developer (MCSD)	117
Microsoft Certified Solutions Expert (MCSE)	111
Salesforce.com Developer	108
American Board for Engineering and Technology (ABET) Accredited	104

Source: Burning Glass

Table 6 lists the top skills mentioned in job postings for computer programming occupations. Over 37% of postings that list skills require a knowledge of JavaScript (22,723 postings), while another 33% of job postings that list skills require SQL skills (20,386).

Table 6 – Top Skills (n=61,200)

Skills	Number of Job Postings
JavaScript	22,723
SQL	20,386
JAVA	17,489
Software Development	16,074
Software Engineering	14,291
Microsoft C#	12,252
jQuery	12,064
.NET Programming	11,560
Web Development	11,107
LINUX	9,351
HTML5	9,340
Object-Oriented Analysis and Design	8,928
ASP	8,161
Hypertext Preprocessor (PHP)	8,090
Extensible Markup Language (XML)	7,854

Source: Burning Glass

Educational Programs

Currently, there are 23 community colleges in Los Angeles and Orange Counties that prepare students for computer programming occupations. In the last three years, 790 awards have been conferred in the region. Over half of the program awards in this region were for computer programming (0707.10). Table 7 displays the breakdown of awards for the related community college programs.

Table 7 – Student Awards (by Program)

Top Code	Program	College Name	Annual 2012-2013	Annual 2013-2014	Annual 2014-2015	3-Year Average
0614.30	Website Design and Development	Coastline	0	0	1	0
		El Camino	0	0	1	0
		Irvine	1	4	8	4
		LA Pierce	1	1	1	1
		Saddleback	25	4	9	13
		Santa Ana	1	11	0	4
		Santiago Canyon	7	7	7	7
0706.00	Computer Science (Transfer)	Cerritos	1	1	0	1
		El Camino	9	11	9	10
		Fullerton	1	6	7	5
		Glendale	1	4	2	2
		Irvine	0	0	1	0
		LA City	5	1	2	3
		LA Southwest	0	0	4	1
		Orange Coast	1	0	1	1
		Saddleback	5	2	4	4
		Santa Ana	2	4	10	5
0707.00	Computer Software Development	Santa Monica	6	4	8	6
		Santiago Canyon	5	8	23	12
		Cypress	0	2	0	1
		Golden West	5	6	4	5
		Orange Coast	8	7	8	8
0707.10	Computer Programming	Saddleback	4	7	6	6
		Cerritos	4	2	1	2
		Coastline	0	0	1	0
		Cypress	17	15	19	17
		East LA	1	2	8	4
		Glendale	3	3	3	3
		Irvine	14	13	18	15

		LA Mission	1	5	1	2
		LA Pierce	10	6	8	8
		LA Southwest	1	2	1	1
		LA Valley	4	6	7	6
		Long Beach	2	1	1	1
		Mt. San Antonio	6	79	72	52
		Orange Coast	10	2	4	5
		Pasadena	2	1	5	3
		Santa Ana	1	0	0	0
		Santa Monica	11	8	24	14
		Santiago Canyon	4	0	0	1
		Glendale	6	2	6	5
0709.00	World Wide Web Administration	LA Pierce	9	9	4	7
		Long Beach	2	2	0	1
		Saddleback	1	1	1	1
		West LA	18	16	10	15
Total			215	265	310	790

Source: <http://datamart.cccco.edu/>