

2020 TECH JOBS SALARY GUIDE

FOR EMPLOYERS AND CANDIDATES

TORONTO



TECH JOBS SALARY GUIDE

In today's digital age, organizations are only as successful as the technology behind their applications, services, or products. Whether technology is at the center of a business model or merely the backbone for something else, companies increasingly see value from investing in the professionals responsible for driving that technological success.

As a result, the tech hiring landscape is more competitive than ever, escalating the opportunities for incredible tech careers (and the salaries attached to them). This often presents a roadblock for hiring managers and an opening for job seekers. But challenges can be overcome and opportunities can be maximized with an improved knowledge of industry trends.

Motion Recruitment's salary guide gives both technologists and hiring managers the crucial job market information they need to stay ahead of the competition.

Hiring Managers

Learn what base compensation is competitive in your local market to effectively extend offers and retain your top tech talent.

Job Seekers

Understand your worth in the marketplace and explore proportional base salaries given your job and city.

Data Sources

The data in this salary guide represents real market compensation ranges derived from 11 major cities in North America. The base salary ranges are divided between Mid-level (2-5 years) and Senior-level experience levels (5+ years). Role ranges may vary by company size, industry and organization structure. All data is propriety to Motion Recruitment Partners, and subject to copyright and infringement protections. Contact Motion Recruitment for more detailed information based on your career needs.



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Before delving into and understanding Motion Recruitment's salary data, it is valuable to consider some of the key trends contributing to the drastic changes occurring across the technology industry in 2020.

The pages that follow contain insights backed by Motion Recruitment's proprietary data and aim to provide clarity to salary and demand changes in those respective fields.

JOB TREND INSIGHTS

Updating Legacy Systems puts Back End on the Back Burner

The cost of maintaining legacy systems is roughly \$300 billion a year, a burden owed largely to developer salaries and dealing with outdated systems, bad software, and broken code. Companies are wising up to this trend, and many firms within government, insurance, and non-profit sectors are rallying to acquire talent that will modernize their outdated technologies. Switching to a newer tech stack improves agility, cost effectiveness, and security, but is creating a skills shortage as the market is not ready to supply the demand at the current growth rates. For example, once Single Page Applications

became popular, the back-end became less about generating HTML and more about simply providing data to the front-end. Therefore, there has been a decrease in need for a heavy backend technology like ASP.NET MVC or Core and an increase in need of framework skills such as Angular, Ember, and React, making them the new mainstream. Not only has the number of roles requiring Angular and React increased, but the salaries tied to them have seen a higher growth rate of 8% in contrast to 2% growth rate in heavy back end tech jobs within the last 5 years.

Hiring Managers

With 30% of enterprise staff set to retire in the next 5 years, not only will updating legacy systems reduce cost and security risks, but will attract the younger talent with modern skills quickly making up the majority of the workforce. These days, a company is only as relevant as its systems allow it to be.

Job Seekers

For developers working with these legacy systems, now may be a good time to learn some new skills. However, this doesn't mean starting over with a new engineering degree. Node.js is compatible with most of these legacy systems, which would allow to keep up with the trend.

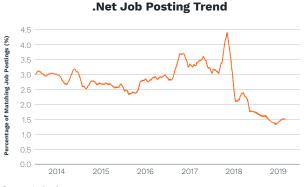


A majority of companies say lack of access to software developers is a bigger threat to success than lack of access to capital.

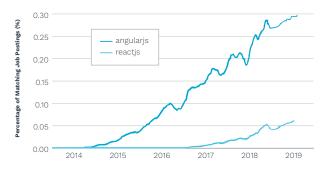
- Drew Sussberg, VP

.Net Declining Trend, Javascript Increasing Trend for Last 5

The chart speaks for itself: a decline in .Net positions over the years.



Angular, React Job Posting Trend



JOB TREND INSIGHTS

Data Related Jobs Have Increased 56% since 2019

The advent of the digital age has provided companies with powerful ways to collect, interpret for data-driven decision-making. However, in order to fully harness this power, the data must be precise and accurate, if not, the consequences of using stale or inaccurate data may be disastrous. In 2019, several standout trends within markets and enterprises emerged that radically impacted the demand for Data Engineers, Data Scientists, and hybrids of the two. The adoption of human-machine interaction (chatbots and voice-controlled applications), live data streamlining applications, IoT device integration and monitoring, 5G networks, and wearable devices are only a few of the reasons data has become more abundant than ever. The impact of this data surge is visible in all the lines of the data engineering field:

BACK TIER

With an average data growth per company ranging from 1GB to 1TB a day, many companies have shifted their focus in modernizing their infrastructure in order to capture, process, and release data faster. To address organizations' big data implementations, either through migrating data warehouses to Cloud or replacing them entirely with data lakes, **Data Warehouse Specialists, Database Architects, and Data Mining Analysts** have seen a 98% increase in demand.

MIDDLE TIER

In 2019, data pipelines have become more complex, diverse, and abundant, a new type of role emerged drastically. **DataOps Engineers** apply Agile and DevOpS methods to the entire data analytics lifecycle to ensure the constant and consistent delivery of quality data to the end analysts. The entry level salaries for this role can start around \$142K on average and may even reach \$200K.

FRONT TIER

The proliferation of interconnected devices has resulted in a new wave of data churn up. Businesses envision machines not only being able to comprehend human syntax but also interact with humans in a very natural way. Companies focusing on machine learning and AI report that they have seen an 83% shortage in **Machine Learning Engineers and Audio Signal Processing Engineers** due to a lack of candidates with demonstrated mathematical and statistical competency, expertise in distributed computing, and business acumen. There were 150,000 big data analytics and AI-based jobs waiting to be filled in 2019 with an average salary of 140K a year.

Hiring Managers

Advances in machine learning and AI tooling have decreased the barriers to entry for these roles. Make great additions to your team by on-boarding candidates with direct experience in ML and AI, rather than headhunting generic PhDs and math professionals without these skills!

Job Seekers

Business analysts, in particular, are in a great position to capitalize on this trend by upgrading their mathematics skills geared towards transitioning into machine learning and algorithms.

JOB TREND INSIGHTS

Tech Architects: The Modern "Jack of All Trades"

With organizations increasingly turning to microservices architecture for flexibility and efficiency, the demand for software architects has made it one of the fastest growing tech skill sets in 2018 and 2019. Microservices allow for applications to be updated in smaller segments, which creates a much more agile environment than having to overhaul an entire system every time a small change is needed. Even larger companies are starting to turn to this structure to compete with successful startups and midsize companies. Segmented services, with out a calculated design connecting everything together, result in a messy architecture. A messy architecture then can have the opposite effect of what microservices is intended to accomplish, creating data redundancies and slowing processes and teams. For this reason, architect roles are on the rise, growing 26% percent more than other professional tech roles. The charts below indicate that not only the number of architecture roles but also the salaries tied to them have grown significantly over the last year. The composition of developers and architects in organizations is also shifting as companies realize the importance of master planning.

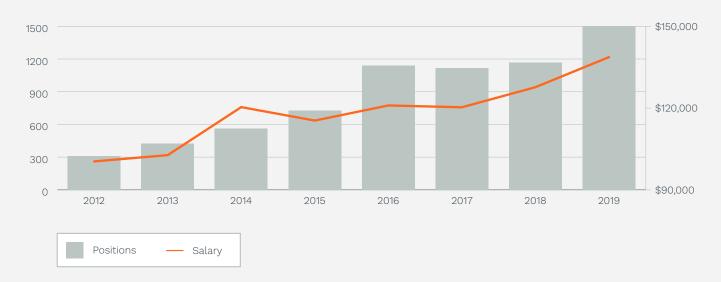
Hiring Managers

For organizations looking to gain an edge over the competition where speed is key, a microservices architecture would most certainly be advantageous. Contact us to hire a competent architect to lay the ground work for technical success.

Job Seekers

For developers looking to enhance their earning potential who enjoy modeling, management, and design, a software architect path might be something to consider.

Architect Roles



Back End Developer

Mid-Level \$93,834

Senior Level \$125,619

Toronto Salary Ranges for Tech Roles

	MID LEVEL		SENIOR LEVEL	
	LOW	HIGH	LOW	HIGH
Management				
Chief Operating Officer			\$160,482	\$226,579
Chief Security Officer			\$178,313	\$226,579
Chief Technology Officer			\$151,769	\$184,971
Creative Director			\$117,686	\$151,355
Director of Engineering			\$143,731	\$177,556
Engineering Manager			\$133,012	\$168,158
VP of Engineering			\$156,168	\$211,669
Back End	\$78,722	\$108,947	\$110,922	\$140,316
.Net Architect	\$87,400	\$120,324	\$127,140	\$152,348
.Net Core Developer	\$73,052	\$96,274	\$124,486	\$147,840
.Net Developer	\$73,283	\$97,852	\$98,731	\$121,811
API Developer	\$75,747	\$99,900	\$107,502	\$137,677
Back End Developer	\$79,948	\$107,721	\$108,099	\$134,806
Blockchain Developer	\$83,862	\$124,743	\$112,163	\$149,339
C# Developer	\$73,685	\$96,106	\$99,950	\$120,323
C++ Developer	\$80,408	\$105,228	\$110,729	\$142,592
Clojure Engineer	\$78,660	\$115,440	\$100,510	\$127,650
CRM Developer	\$76,225	\$99,412	\$99,281	\$122,239
Elixir Engineer	\$65,550	\$105,080	\$98,762	\$126,984
Full Stack .Net Developer	\$72,615	\$96,354	\$93,858	\$111,444
Full Stack Architect	\$78,660	\$106,560	\$132,193	\$157,620
Full Stack C# Developer	\$71,493	\$91,819	\$87,400	\$106,560
Golang Developer	\$81,209	\$114,700	\$111,471	\$138,026
Integration Developer	\$85,943	\$114,552	\$111,981	\$138,750
Java Architect	\$87,400	\$148,000	\$120,955	\$156,470
Java Engineer	\$78,805	\$108,733	\$104,387	\$125,229
Microservices Developer	\$87,400	\$106,560	\$109,250	\$153,180
Node Architect	\$87,400	\$133,200	\$157,320	\$213,120
Node.js Engineer	\$78,931	\$110,149	\$111,761	\$139,003
PHP Developer	\$68,378	\$92,879	\$95,133	\$117,318
Platform Developer	\$80,117	\$108,533	\$123,310	\$146,959
Python Architect	\$87,400	\$117,660	\$117,990	\$143,252
Python Developer	\$74,408	\$102,456	\$107,477	\$134,615
Ruby Architect	\$78,660	\$115,440	\$104,880	\$177,600
Ruby Developer	\$74,884	\$106,277	\$104,594	\$134,403
Scala Developer	\$83,849	\$112,943	\$117,150	\$139,418
Server Side Developer	\$77,568	\$104,562	\$118,281	\$152,588
Data	\$77,962	\$110,473	\$109,440	\$136,282
Al Engineer	\$76,475	\$119,880	\$107,065	\$120,250
Audio Signal Processing Engineer	\$87,400	\$106,560	\$113,620	\$139,120
Big Data Engineer	\$84,560	\$126,540	\$111,485	\$141,944
Business Intelligence Analyst	\$74,515	\$93,738	\$97,597	\$112,480
Business Intelligence Developer	\$87,400	\$106,560	\$101,967	\$127,280
Computer Vision Engineer	\$78,660	\$142,080	\$128,915	\$170,287
Data Analyst	\$66,452	\$92,033	\$98,070	\$127,953
Data Architect	\$85,059	\$128,760	\$127,624	\$159,874
Data Engineer	\$82,656	\$123,688	\$122,159	\$151,354

Front End Developer

Mid-Level \$87,814

Senior Level \$119,973

	MID L	MID LEVEL		SENIOR LEVEL	
	LOW	HIGH	LOW	HIGH	
Data Modeler	\$69,920	\$86,580	\$104,880	\$130,733	
Data Scientist	\$77,928	\$115,096	\$113,217	\$142,247	
Data Warehouse Engineer	\$73,015	\$104,525	\$104,637	\$136,808	
DataOps Engineer	\$87,400	\$146,520	\$134,596	\$166,056	
ELK Stack Monitoring Engineer	\$87,400	\$124,320	\$104,880	\$133,200	
ERP Developer	\$65,550	\$86,580	\$104,880	\$126,540	
Image Processing Engineer	\$72,105	\$102,120	\$91,770	\$102,120	
Machine Learning Engineer	\$73,926	\$108,040	\$123,874	\$161,995	
Microstrategy Developer	\$80,117	\$105,080	\$104,880	\$142,080	
SQL DBA	\$78,660	\$106,560	\$105,754	\$125,208	
SQL Developer	\$70,035	\$84,196	\$86,940	\$108,102	
Embedded	\$78,873	\$103,240	\$111,006	\$144,623	
Embedded Engineer	\$78,056	\$102,161	\$115,658	\$145,197	
Firmware Engineer	\$72,105	\$102,120	\$115,368	\$149,628	
IoT Engineer	\$84,487	\$115,440	\$108,117	\$137,147	
Middleware Engineer	\$80,845	\$93,240	\$104,880	\$146,520	
Front End	\$75,351	\$100,278	\$107,895	\$132,052	
3D Motion Designer	\$78,660	\$106,560	\$116,533	\$139,120	
CMS Developer	\$78,332	\$98,853	\$101,378	\$120,546	
Data Visualization Designer	\$56,810	\$71,040	\$104,880	\$142,080	
Front End Architect	\$87,400	\$115,440	\$133,285	\$153,180	
Front End Developer	\$74,649	\$101,990	\$106,007	\$134,518	
Full Stack PHP Developer	\$68,289	\$92,293	\$96,031	\$118,770	
Graphic Designer	\$76,912	\$90,576	\$96,140	\$124,320	
Interactive Producer	\$74,290	\$103,896	\$113,620	\$126,540	
JavaScript Architect	\$87,400	\$150,960	\$139,840	\$159,840	
JavaScript Developer	\$77,367	\$104,324	\$101,688	\$133,263	
Product Designer	\$81,255	\$108,346	\$114,329	\$136,740	
Sitecore Developer	\$67,007	\$103,600	\$105,973	\$122,100	
Ul Architect	\$67,735	\$84,360	\$126,184	\$155,400	
UI Designer	\$69,920	\$87,912	\$95,412	\$116,920	
UI Developer	\$81,865	\$102,564	\$106,964	\$133,755	
UI/UX Designer	\$75,258	\$103,094	\$100,304	\$133,733	
UX Designer	\$79,737	\$100,034	\$105,717	\$129,662	
UX Researcher	\$87,400	\$100,560	\$105,717	\$134,310	
Visual Designer	\$74,399	\$91,686	\$98,259	\$134,310	
Web Developer	\$74,399	\$100,877	\$111,271	\$132,010	
WPF Engineer	\$61,180	\$79,920		\$97,680	
Functional	\$84,890	\$111,154	\$74,290 \$101,129	\$129,463	
- 1		4			
Product Manager Project Manager	\$93,062 \$76,718	\$119,571	\$106,847	\$137,936	
General		\$102,737	\$95,412	\$120,990	
	\$76,323	\$102,784	\$111,054	\$143,834	
Electrical Engineer	\$56,810	\$88,800	\$117,990	\$151,700	
Full Stack Developer	\$77,014	\$106,826	\$104,491	\$133,928	
Game Developer	\$78,660	\$116,920	\$122,360	\$144,300	
Managed Services Engineer	\$69,920	\$88,800	\$113,620	\$150,960	
Mechanical Engineer	\$87,400	\$106,560	\$104,880	\$159,840	
Research Engineer	\$75,747	\$93,240	\$115,077	\$144,645	
Robotics Engineer	\$87,400	\$111,000	\$102,695	\$136,530	
Software Developer	\$73,581	\$100,442	\$110,621	\$135,870	
Solidity Developer	\$69,920	\$99,500	\$105,608	\$134,680	
Solutions Architect	\$86,776	\$115,757	\$113,198	\$145,882	

DevOps Engineer

Mid-Level \$90,020

Senior Level \$123,057

	MID I	MID LEVEL		SENIOR LEVEL	
	LOW	HIGH	LOW	HIGH	
Infrastructure	\$77,123	\$100,984	\$109,266	\$134,839	
Application Architect	\$78,660	\$93,240	\$122,360	\$170,200	
Application Developer	\$73,868	\$95,405	\$105,192	\$125,271	
Application Specialist	\$55,062	\$73,748	\$69,920	\$84,360	
Application Support Analyst	\$62,054	\$82,584	\$85,652	\$102,120	
Business Systems Administrator	\$60,597	\$76,269	\$83,576	\$104,525	
Channels Operation Engineer	\$78,660	\$111,000	\$104,880	\$159,840	
CI/CD Engineer	\$87,400	\$124,320	\$111,435	\$137,640	
Cisco Engineer	\$67,735	\$84,360	\$115,077	\$142,080	
Citrix systems Engineer	\$81,136	\$102,860	\$100,510	\$115,440	
Cloud Administrator	\$64,093	\$82,880	\$97,233	\$128,205	
Cloud Architect	\$83,030	\$108,225	\$129,137	\$157,204	
Cloud Developer	\$80,793	\$107,834	\$108,475	\$134,207	
Cloud Site Reliability Engineer	\$87,400	\$111,000	\$131,100	\$199,800	
CloudOps Engineer	\$77,786	\$98,365	\$118,136	\$138,380	
Controls Engineer	\$69,920	\$106,560	\$119,447	\$159,840	
Database Administrator	\$75,383	\$94,461	\$95,739	\$113,997	
Database Developer	\$78,257	\$101,505	\$112,580	\$141,446	
Database Site Reliability Engineer	\$107,065	\$146,520	\$157,320	\$177,600	
DevOps Architect	\$82,420	\$110,867	\$138,092	\$171,976	
DevOps Engineer	\$77,877	\$102,163	\$108,998	\$137,116	
DevOps Engineer DevSec Engineer	\$87,400	\$102,103	\$109,229	\$137,110	
Docker Engineer	\$73,666	\$97,046	\$104,880	\$132,249	
Incident Response Engineer	\$73,000	\$102,120	\$104,880	\$137,640	
Information Security Analyst	\$67,189	\$84,360	\$99,040	\$137,040	
· · · · · · · · · · · · · · · · · · ·	\$87,400			\$142,524	
Information Security Engineer Infrastructure Architect		\$108,780 \$124,320	\$119,301 \$135,470	\$146,520	
	\$87,400 \$72,378	\$100,682		\$135,755	
Infrastructure Engineer	\$64,275		\$117,893		
IT Engineer		\$79,828	\$83,030	\$104,340	
Kubernetes Engineer	\$87,400	\$117,343	\$130,570	\$167,375	
Linux Administrator	\$74,495	\$93,552	\$93,948	\$121,834	
Linux Systems Engineer	\$77,203	\$105,941	\$106,136	\$132,153	
LinuxOps Engineer	\$80,377	\$99,160	\$117,990	\$139,860	
Network Administrator	\$57,684	\$76,257	\$83,030	\$93,240	
Network Architect	\$78,660	\$103,600	\$119,863	\$145,674	
Network Automation Engineer	\$87,400	\$124,320	\$116,533	\$142,080	
Network Security Engineer	\$83,093	\$107,070	\$107,682	\$139,183	
Operations Engineer	\$72,979	\$94,572	\$112,163	\$144,300	
Risk Security Engineer	\$83,030	\$97,680	\$102,695	\$130,980	
SecOps Engineer	\$78,660	\$108,040	\$109,250	\$128,760	
Security Analyst	\$72,105	\$90,921	\$100,510	\$114,330	
Security Architect	\$87,400	\$133,200	\$141,297	\$174,640	
Security Engineer	\$84,760	\$117,013	\$132,375	\$175,733	
Server Administrator	\$67,735	\$82,140	\$85,215	\$100,640	
SIEM Engineer	\$83,030	\$88,800	\$91,770	\$102,120	
Site Reliability Engineer	\$84,450	\$107,579	\$116,146	\$142,999	
Storage Engineer	\$77,203	\$94,720	\$102,383	\$125,589	
SystemOps Engineer	\$73,416	\$95,460	\$119,447	\$142,080	
Systems Administrator	\$65,120	\$79,415	\$92,595	\$113,905	
Systems Engineer	\$77,200	\$108,005	\$105,608	\$131,535	
TechOps Engineer	\$81,573	\$111,000	\$102,695	\$126,170	
Virtualization Engineer	\$85,458	\$109,027	\$97,597	\$114,700	
Windows Systems Engineer	\$68,964	\$87,775	\$97,034	\$116,160	

QA Automation Engineer

Mid-Level \$83,771

Senior Level \$114,356

	MID L	MID LEVEL		SENIOR LEVEL	
	LOW	HIGH	LOW	HIGH	
Mobile	\$78,908	\$112,773	\$111,785	\$138,302	
Android Developer	\$79,066	\$114,895	\$115,462	\$142,100	
iOS Developer	\$76,286	\$111,090	\$109,529	\$134,205	
React Native Developer	\$79,436	\$120,768	\$120,763	\$148,142	
Xamarin Developer	\$80,845	\$104,340	\$101,384	\$128,760	
AQ	\$72,686	\$94,856	\$101,250	\$127,463	
Automation Architect	\$78,660	\$115,440	\$130,008	\$153,180	
Automation Engineer	\$72,757	\$94,273	\$102,244	\$127,844	
Build and Release Engineer	\$78,879	\$100,566	\$113,370	\$152,736	
Loop Developer	\$76,475	\$101,565	\$101,967	\$119,880	
Manual QA Developer	\$58,995	\$74,000	\$78,114	\$97,125	
QA Automation Engineer	\$82,413	\$109,182	\$103,128	\$125,483	
QA Engineer	\$61,464	\$80,168	\$88,181	\$117,512	
SDET	\$72,990	\$94,944	\$106,836	\$129,091	
Test Engineer	\$71,543	\$83,567	\$87,400	\$124,320	
Support	\$67,999	\$84,655	\$92,356	\$110,440	
Customer Success Engineer	\$83,030	\$101,010	\$113,620	\$142,080	
Help Desk Support	\$53,624	\$64,318	\$71,013	\$88,800	
IT Administrator	\$59,723	\$74,000	\$78,660	\$95,460	
Mac Engineer	\$76,475	\$94,572	\$100,510	\$119,880	
Microsoft Engineer	\$74,426	\$98,275	\$97,991	\$117,537	
Pre-sales Engineer	\$82,250	\$100,154	\$104,880	\$146,520	
Support Analyst	\$53,411	\$80,907	\$91,770	\$102,120	
Support Engineer	\$72,304	\$86,378	\$100,510	\$106,560	
Support Specialist	\$56,810	\$67,710	\$91,770	\$104,784	
Windows Administrator	\$67,940	\$79,226	\$72,833	\$80,660	
Grand Total	\$76,604	\$102,735	\$108,025	\$134,534	



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Hiring Managers

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Job Seekers

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