

About Karat's top city rankings

As organizations grow, the opportunity to expand software engineering teams opens up a literal world of possibilities for technical hiring. The best location to build new capability centers depends on your company's goals, brand, size, industry, and speciality.

But how should engineering leaders prioritize locations? Karat's third report on top cities for hiring software engineers offers some insights. Given the wide range of companies hiring tech talent, we analyzed two different hiring bars and developed rankings for each.

Our **first set of rankings** features 31 cities with the highest concentrations of elite candidates and at least 10,000 total software engineers living in the greater metropolitan area. Elite candidates are software engineers who perform in the top quartile of all technical interviews globally, based on Karat's dataset of more than 350,000 interviews.

These elite candidates command premium compensation and often have the opportunity to choose between multiple competing job offers. The majority of elite software engineers are either coming from, or going to, high-bar tech companies. This includes some of the world's most recognizable brands and highest-growth organizations.

For decades, industries like big-tech, social media, fintech, and rideshare/delivery services have dominated the market for these sought-after candidates. Over the past year, however, hiring freezes and layoffs have shifted the landscape. In a more volatile economic climate, large enterprises like big banks, retailers, and industrial companies are <u>using stability and job security</u> to attract more <u>top candidates</u>.

Historically, it has been challenging for hiring companies to close these elite candidates. Job offer acceptance rates, also known as "close rates" historically

range between 50%-55%. This changed over the past year as the labor market tightened and layoffs hit the big-tech organizations that had previously scooped up much of the elite engineering talent. In 2023, the acceptance rate for these candidates climbed to 73%.

The **second set of rankings** adds strong candidates to the overall percentage." This also includes engineers who fall outside of the top quartile, but still perform well enough in technical interviews to advance to the next stage of hiring at most companies. Larger enterprise organizations, such as financial services, insurance, healthcare, energy, retail, automotive, telecommunications, and manufacturing, tend to hire from this broader candidate base. They form the backbone of most software engineering teams.

Members of this cohort still have a lot of decision-making power, but much like elite candidates, this group is also accepting jobs at a higher rate compared to previous years. Close rates for strong candidates were over 80% in 2023, up from 66% in 2022 before the labor market started to tighten.

The concentration of developer talent is not the only factor in forming a global hiring strategy. For instance, while Amsterdam tops our list of elite cities this year, the total number of top-performing candidates pales in comparison to deeper talent pools like Bangalore or San Francisco.

To get a full picture of the hiring landscape, we also looked at the total number of engineering candidates in each market as reported by LinkedIn Insights, as well as the median compensation for software engineers across all levels as determined by levels.fyi.

As organizations grow and evolve, many seek to raise their quality of hires by shifting from relying on contractors to building global capability centers in new markets. Others may be looking to increase their workforce flexibility and manage costs by partnering with tech service providers in different markets. It's our hope that this report will help engineering and talent leaders make more informed decisions about their future hiring plans.

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Top Cities for Elite Software Engineers

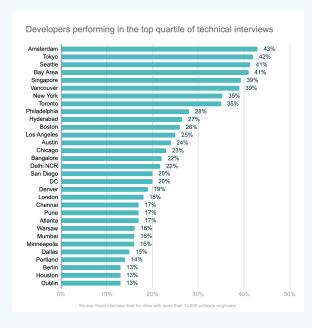
Amsterdam takes the top spot in this year's rankings for its concentration of elite engineers. Other cities moving up include Seattle and San Francisco, each climbing two spots as layoffs pushed some elite developers into the job market, driving up performance averages in the big tech hubs.

Half of this year's top-30 cities are located in the United States, but just four of the top-10, reflecting the truly global nature of software development. Eight of our top cities are located in Asia, including six in India — the most of any country outside of the U.S.

India is also notable for its massive pool of strong engineering talent. Bangalore is home to roughly the same number of software engineers as the top 3 U.S. cities combined (Seattle, San Francisco, and New York), and ranks at the top of the list for cities with the highest estimated volume of elite software engineers.

Elite candidates were more geographically dispersed this year compared to previous years, likely a reflection of the continued strength of remote hiring and the rise of global capability centers in cost-efficient markets. While the Latin America and African tech scene missed out on this year's rankings, we are seeing increasing hiring trends in markets like Mexico City, Guadalajara, São Paulo, Buenos Aires, Lagos, and Johannesburg, and we expect to see those cities climbing the rankings in future reports.

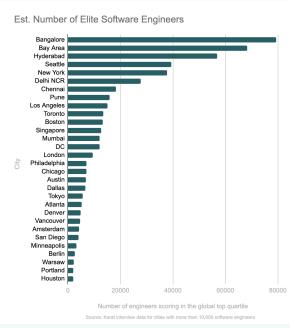
Top 30 cities to hire elite software engineers in 2024





Percentage of developers performing in the top quartile of technical interviews

Fig. 1





Estimated number of elite software engineers based on interview performance

Fig. 2
See appendix for full details

Top Cities for Strong Software Engineers

North America's West Coast shines when it comes to concentrations of strong software engineers, with Seattle, the San Francisco Bay Area, and Vancouver taking the top three spots of these rankings. European cities saw the largest drop in rankings when shifting from elite talent to strong talent, while a number of Indian cities rose in the ranks.

Top 30 cities to hire strong software engineers in 2024



Percentage of developers meeting a standard hiring-bar based on technical interview performance

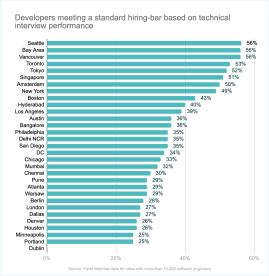
<u>Fig. 3</u>

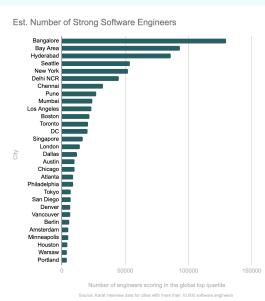


Estimated number of strong software engineers based on interview performance

Fig. 4

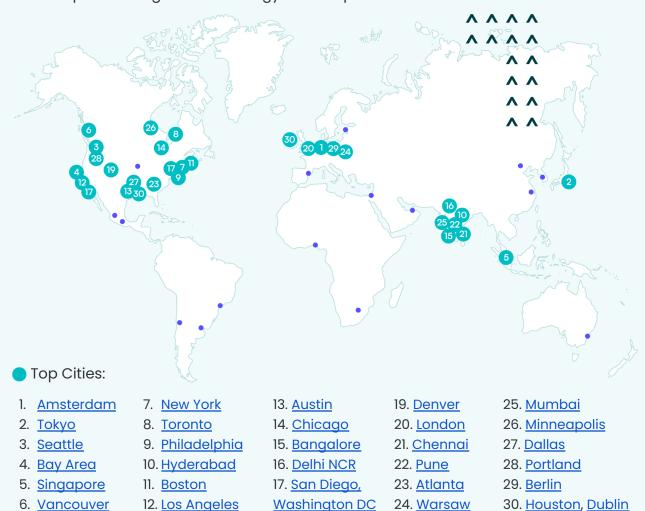
See appendix for full details





About the top cities

These insights provide a glimpse into the diverse software engineering job markets across cities, showcasing major companies, median salaries, and areas of expertise that shape each region's technology landscape.



Growing markets for software engineers:

Barcelona	Guadalajara	Mexico City	Shanghai
Beijing	Johannesburg	Santiago de Chile	Sydney
Buenos Aires	Kansas City	São Paulo	Tallinn
Dubai	Lagos	Seoul	Tel Aviv

1. Amsterdam



- #1 for elite engineering talent (#1 in Europe)
- #7 for strong engineering talent (#1 in Europe)
- 20th most expensive
- 31st largest talent pool

Despite a smaller total volume of engineers compared to other top cities, Amsterdam's software engineering market is thriving, with major companies like Booking.com, Adyen, and TomTom contributing to its tech ecosystem. The median salary for software engineers across all levels is \$100,000. The city has a strong emphasis on fintech, e-commerce, and navigation technology, aligning with its role as a European tech hub.

2. Tokyo



- #2 for elite engineering talent (#1 in Asia)
- #4 for strong engineering talent (#1 in Asia)
- 26th most expensive
- 28th largest talent pool

Tokyo's software engineering landscape is shaped by a blend of global and local companies. While multinational corporations like Sony and Toyota have a presence, Japanese firms such as Rakuten and SoftBank also play a significant role. The median salary is \$61,000, reflecting a mix of global and local pay scales. Software engineers who are proficient in English often work for global enterprises with offices in Japan and command significantly higher salaries compared to ones working for local companies. The city's expertise spans robotics, electronics, and entertainment technologies.

3. Seattle



- #3 for elite engineering talent (#1 in the US)
- #1 for strong engineering talent (#1 in the US)
- 2nd most expensive
- 7th largest talent pool

Home to tech giants like Amazon and Microsoft, the greater Seattle area is a powerhouse in software engineering. The median salary is \$220,000, reflecting the competitive nature of the market. Cloud computing, e-commerce, and AI are prominent areas of expertise, aligning with the strengths of the region's major players, with a robust startup ecosystem providing even more opportunities for candidates.

4. San Francisco (Bay Area and Silicon Valley)



- #4 for elite engineering talent (#2 in the US)
- #2 for strong engineering talent (#2 in the US)
- 1st most expensive
- 3rd largest talent pool

The Bay Area – including San Francisco, Oakland, and Silicon Valley – remains one of the world's preeminent tech hubs, ranking 4th for its concentration of elite talent and 2nd for its total number of elite software engineers. The Bay Area is home to tech giants like Apple, Google, and Facebook, and a thriving roster of ever–growing startups and biotech organizations. The median salary is \$242,000, reflecting the high cost of living. The region excels in cutting–edge technologies, including Silicon Valley's focus on software development, artificial intelligence, and biotech.

5. Singapore



- #5 for elite engineering talent (#2 in Asia)
- #6 for strong engineering talent (#2 in Asia)
- 23rd most expensive
- 16th largest talent pool

Last year's top-ranked city, Singapore slipped five spots as layoffs across other major tech hubs created an influx of elite engineering talent hitting the job market. Singapore's technology ecosystem is dynamic, with a mix of global finance, tech companies, and prestigious government jobs. Major players include DBS Bank and Grab. The median salary is \$89,000. The city-state emphasizes fintech, e-commerce, and logistics technologies, aligning with its strategic position in Southeast Asia.

6. Vancouver



- #6 for elite engineering talent (#1 in Canada)
- #3 for strong engineering talent (#1 in Canada)
- 18th most expensive
- 15th largest talent pool

Vancouver's tech scene is growing, with companies like Lululemon and Telus contributing to the sector. The median salary is \$111,000, making Vancouver one of the most expensive non-US cities on our list this year. Video game development, film technology, and sustainable technology are notable areas of expertise, reflecting the city's diverse economy. Vancouver also serves as an important market for Asian companies setting up offices in North America, adding to the city's growth as an international business hub.

7. New York



- #7 for elite engineering talent (#3 in the US)
- #8 for strong engineering talent (#3 in the US)
- 3rd most expensive
- 6th largest talent pool

New York's software engineering ecosystem is diverse, with companies ranging from financial service giants like Goldman Sachs to digital streaming services like Spotify calling the city home. The median salary is \$180,000, reflecting the city's high living costs. Fintech, media, and healthcare technologies are prominent in New York's tech landscape.

8. Toronto



- #8 for elite engineering talent (#2 in Canada)
- #8 for strong engineering talent (#2 in Canada)
- 22nd most expensive
- 15th largest talent pool

Toronto's tech sector is robust, with companies like Shopify and RBC driving innovation. The median salary is \$99,000. The city excels in fintech, e-commerce, and Al, leveraging its position as a major financial and business hub.

9. Philadelphia



- #9 for elite engineering talent (#4 in the US)
- #14 for strong engineering talent (#8 in the US)
- 13th most expensive
- 22nd largest talent pool

Philadelphia's software engineering job market is anchored by enterprise and financial service companies like Comcast and Vanguard. The median salary is \$125,000. Ranking right behind Philadelphia should be Pittsburgh, which just missed this year's cutoff of more than 10,000 professional engineers. Several elite universities across the state of Pennsylvania make for a dynamic tech scene spanning robotics, healthcare technologies, financial services, and telecommunications companies.

10. Hyderabad



- #10 for elite engineering talent (#1 in India)
- #10 for strong engineering talent (#1 in India)
- 27th most expensive
- 2nd largest talent pool

The first of six Indian cities on our list, Hyderabad stands out as an engineering talent hub with major companies like Microsoft and Google having a significant presence. With a volume of elite engineers that rivals San Francisco, and a median engineering salary of \$32,000, it's no surprise that some of the world's biggest enterprise companies are looking at Hyderabad to launch global capability centers. The city excels in IT services, software development, and business process outsourcing, making it a key player in India's tech landscape.

Hiring in India

India is a global powerhouse for engineering talent, with millions of experienced software engineers and 1.5 million engineering students graduating each year. With the emergence of several prestigious engineering institutions and widespread Internet access that aids in skill development, India boasts a large youth population that is ambitious and tech-savvy. The growth of global capability centers and a thriving startup ecosystem has made India the world's largest market for technical talent, representing half of our top-10 cities for elite engineers by volume.

India is also a complex market to navigate and it requires a deep understanding of its unique challenges and opportunities. For example, although there's an enormous number of engineers in India, the competition for talent is fierce. The rush to hire in India is now leaving the country without enough talent to meet demand in fields like Al and data science.

In addition to growing competition, India is one of the fastest-moving talent markets in the world with candidates scheduling and completing their technical interviews in about half as many days as they do in the US.

For more insights about entering India's tech hiring market, check out The State of Software Engineering in India. Learn More Z



About the top cities (continued)

11. Boston



- #11 for elite engineering talent (#5 in the US)
- #9 for strong engineering talent (#4 in the US)
- 8th most expensive
- 13th largest talent pool

Boston's software engineering market is buoyed by biotech and e-commerce companies like Biogen and Wayfair. The median salary is \$159,000, reflecting the city's status as an academic and healthcare hub. Biotechnology, healthcare IT, and education technology are significant areas of expertise.

12. Los Angeles



- #12 for elite engineering talent (#6 in the US)
- #11 for strong engineering talent (#5 in the US)
- 5th most expensive
- 11th largest talent pool

Los Angeles boasts a growing tech scene with companies like SpaceX and Snapchat calling it home. The median salary across all levels is \$165,000. The city excels in aerospace technology, entertainment software, and social media platforms.

13. Austin



- #13 for elite engineering talent (#7 in the US)
- #12 for strong engineering talent (#6 in the US)
- 6th most expensive
- 19th largest talent pool

Companies like Dell and Indeed are driving innovation in and around Austin. The median salary is \$165,000 and has been climbing rapidly over the past five years. The city is known for its expertise in software development, cybersecurity, and emerging technologies, fostering a vibrant startup ecosystem, and making it a desirable destination for companies and workers seeking alternatives to the West Coast tech hubs of San Francisco and Seattle.

14. Chicago



- #14 for elite engineering talent (#8 in the US)
- #18 for strong engineering talent (#10 in the US)
- 11th most expensive
- 17th largest talent pool

Chicago's software engineering market serves a diverse mix of industries, including major development centers for Boeing and Groupon. The median salary is \$140,000. Financial technology, logistics software, and healthcare IT are key areas of expertise.

15. Bangalore



- #15 for elite engineering talent (#2 in India)
- #13 for strong engineering talent (#2 in India)
- 26th most expensive
- 1st largest talent pool

Bangalore ranks as the largest market for software engineers in the world with more than 360,000 professional developers. For decades, IT services and consulting giants like Infosys and Wipro have formed the backbone of India's tech scene, but in recent years, the rise of global capability and innovation centers has tapped into the city's deep pool of talent. Global giants like Walmart and Cisco selected Bangalore as their Indian development hubs, driving up competition for engineers like never before. This has fueled a transformation with more and more of the elite Indian developers taking full time roles for multinational corporations and thinning the ranks of contract engineers. The median salary is \$36,000. The city is a global leader in IT services, software development, and research and development.

16. Delhi National Capital Region



- #16 for elite engineering talent (#3 in India)
- #15 for strong engineering talent (#3 in India)
- 28th most expensive
- 4th largest talent pool

The Delhi NCR encompasses the city of Delhi and its surrounding districts. This includes Noida, one of India's fastest growing cities, and Gurgaon, India's second largest IT hub. The country's software engineering landscape includes companies like HCL Technologies, a major Infosys presence, and global capability centers for companies like Microsoft, IBM, Adobe, and Oracle. The median salary is \$38,000. The region is a hub for IT services, e-commerce, and telecommunications technologies.

17 (tie). Washington, D.C.



- #T-17 for elite engineering talent (#T-9 in the US)
- #18 for strong engineering talent (#10 in the US)
- 10th most expensive
- 10th largest talent pool

The greater Washington, D.C. area (including Northern Virginia and Baltimore), features companies like Lockheed Martin and Booz Allen Hamilton in its tech sector. The median engineering salary is \$145,000. Government technology, cybersecurity, and defense technologies are prominent in the region.

17 (tie). San Diego



- #T-17 for elite engineering talent (#T-9 in the US)
- #16 for strong engineering talent (#9 in the US)
- 4th most expensive
- 24th largest talent pool

San Diego's tech scene includes companies like Qualcomm and Illumina. The median salary is \$170,000. The city is known for its expertise in telecommunications, biotechnology, and semiconductor technologies.

19. Denver



- #19 for elite engineering talent (#11 in the US)
- #28 for strong engineering talent (#13 in the US)
- 9th most expensive
- 20th largest talent pool

Denver's software engineering market includes companies like Arrow Electronics and Dish Network. The median salary is \$150,000. The city's strengths lie in aerospace, telecommunications, and renewable energy technologies.

20. London



- #20 for elite engineering talent (#2 in Europe)
- #25 for strong engineering talent (#4 in Europe)
- 17th most expensive
- 12th largest talent pool

London's tech ecosystem is diverse, featuring companies like Barclays and Deliveroo. The median salary is \$114,000. Fintech, e-commerce, and cybersecurity are key areas of expertise in the city.

21. Chennai



- #21 for elite engineering talent (#4 in India)
- #28 for strong engineering talent (#5 in India)
- 29th most expensive
- 5th largest talent pool

Chennai's software engineering landscape includes companies like TCS and Cognizant. The median developer salary is \$21,000. The city is a major player in IT services, software development, and business process outsourcing.

22. Pune



- #22 for elite engineering talent (#5 in India)
- #28 for strong engineering talent (#6 in India)
- 30th most expensive
- 8th largest talent pool

Pune, known for its tech parks, hosts companies like Infosys and Persistent Systems. The median salary is \$20,000. In addition to serving as a hub for a number of multinational enterprise and financial service organizations, the city is known as a powerhouse in the IT services, software development, and automotive technologies industries.

23. Atlanta



- #23 for elite engineering talent (#12 in the US)
- #22 for strong engineering talent (#11 in the US)
- 12th most expensive
- 18th largest talent pool

Atlanta's tech sector features companies like Coca-Cola and UPS. The median salary is \$132,000. As one of the most diverse big cities in the United States, Atlanta is a hotbed for up-and-coming developers coming from underrepresented backgrounds. The city excels in logistics software, telecommunications, and financial technologies.

24. Warsaw



- #24 for elite engineering talent (#3 in Europe)
- #23 for strong engineering talent (#2 in Europe)
- 24th most expensive
- 29th largest talent pool

Warsaw's software engineering market includes companies like CD Projekt and Allegro, as well as a robust slate of nearshore developer shops. The median salary is \$65,000, making Warsaw the most cost-effective market in Europe for this year's rankings. The city is a hub for gaming software development, e-commerce, and IT services.

25. Mumbai



- #25 for elite engineering talent (#6 in India)
- #19 for strong engineering talent (#4 in India)
- 31st most expensive
- 9th largest talent pool

Mumbai's tech landscape includes companies like Tata Consultancy Services (TCS) and Reliance Industries. The median salary is \$18,000, making Mumbai the lowest cost market in this year's top city rankings. The city is a major player in IT services, finance technology, and media software development. Mumbai boasts a higher concentration of strong engineers compared to the next lowest-cost Indian cities and making it a prime location for organizations planning for future global capability centers.

26. Minneapolis



- #26 for elite engineering talent (#13 in the US)
- #22 for strong engineering talent (#15 in the US)
- 16th most expensive
- 26th largest talent pool

The Twin Cities' tech scene features a number of organizations undergoing digital transformation. Major players include 3M, Best Buy, Target and UnitedHealth Group. Favorable cost of living makes this the most cost-effective market in the U.S. with an median salary of \$118,000. The region excels in retail technology, healthcare IT, and financial technologies.

27. Dallas



- #27 for elite engineering talent (#14 in the US)
- #26 for strong engineering talent (#12 in the US)
- 14th most expensive
- 14th largest talent pool

Home to a number of corporate headquarters, including AT&T, Texas Instruments, Southwest Airlines, and Capital One Bank, the Dallas Metroplex has a growing demand for tech talent, and affordable living options across Dallas, Plano, and Ft. Worth. The median salary is \$123,000. The city is known for telecommunications, semiconductor technologies, and finance software development.

28. Portland



- #28 for elite engineering talent (#15 in the US)
- #30 for strong engineering talent (#16 in the US)
- 7th most expensive
- 26th largest talent pool

Portland's software engineering market includes companies like Intel and Nike. The median salary is \$165,000. The city is a hub for semiconductor technologies, apparel and retail software, and sustainable technologies.

29. Berlin



- #29 for elite engineering talent (#4 in Europe)
- #24 for strong engineering talent (#3 in Europe)
- 22nd most expensive
- 22nd largest talent pool

Berlin's tech ecosystem includes companies like SoundCloud and Zalando. The median salary is \$90,000. The city excels in e-commerce, music streaming technologies, and startup innovation.

30 (tie). Dublin



- #T-30 for elite engineering talent (#5 in Europe)
- NR for strong engineering talent
- 19th most expensive
- 27th largest talent pool

Dublin's tech sector features companies like Google and Accenture. The median salary is \$108,000. The city is a hub for tech giants, with strengths in data analytics, cloud computing, and finance technology.

30 (tie). Houston



- #T-30 for elite engineering talent (#16 in the US)
- #28 for strong engineering talent (#15 in the US)
- 15th most expensive
- 25th largest talent pool

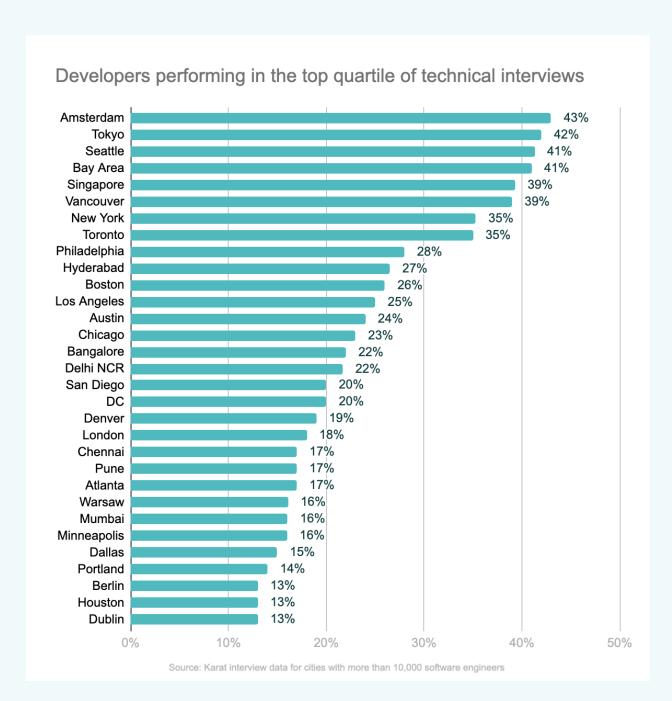
Houston's software engineering market is gaining prominence with companies like ExxonMobil and NASA's Johnson Space Center contributing to its diverse tech landscape. The median salary is \$120,000. The city is recognized for its expertise in energy software solutions, aerospace technologies, and healthcare IT. With a growing emphasis on innovation, Houston is becoming a hub for industries beyond its traditional energy sector, fostering a dynamic environment for software engineers.

If you're ready to boost your organization with top-tier software engineering talent from India, Karat can help you break into the market. Leverage our global experience in conducting nearly 350,000 technical interviews, and scale your hiring process with our automated top-of-the-funnel assessment and team of certified technical interviewers.

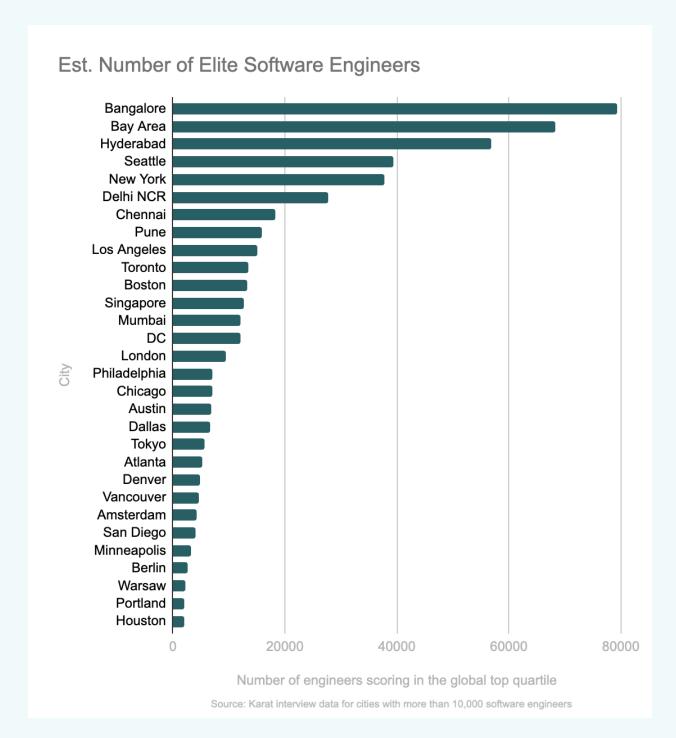
Learn More /

Appendix

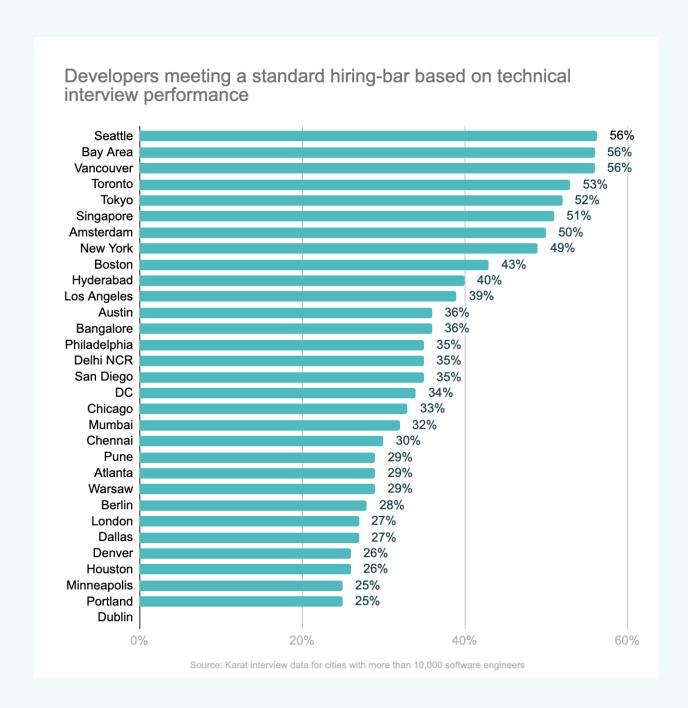
Fg. 1 Percentage of developers performing in the top quartile of technical interviews



Fg. 2 Estimated number of elite software engineers based on interview performance



Fg. 3
Percentage of developers meeting a standard hiring-bar based on technical interview performance



Fg. 4
Estimated number of strong software engineers based on interview performance

