MANASEARCH

DATA ANALYTICS

Permanent Salary Report 2020

FOREWORD

When I first started as a Headhunter 15 years ago, the term "data science" barely existed. Today, it is not uncommon for even small businesses with between 50-250 people to have a Chief Data Officer, especially in the case of data-driven platforms and FinTech startups. This has created extremely high demand for data science skill sets – demand that employers are struggling to fill.

In the UK, Brexit has been one of the major concerns for the flow of data analytics talent. However, from our data we can determine that the number of vacant positions is on the rise, which also indicates an ongoing mismatch of qualified talent within the market. If the overseas talent pool were to reduce or be cut off, high-growth tech would suffer.

Over the coming decade, as the application of data becomes ever-more vital, we believe there will be increased demand for data-related skills.

As a counterpoint, just like many professions, automation in data analytics will create efficiencies that do not currently exist.

What impact will this have on the talent market? The adoption of cloud technology, and demand for automation engineering and machine learning, are crucial elements that companies must address through their tech stacks and talent acquisition efforts.

Lloyd Wahed

Lloyd Wahed
CEO

EXECUTIVE **SUMMARY**

Data scientists, engineers and analytics professionals are in high demand. They enable organisations to extract valuable insights from data and apply them for substantial actionable solutions. As data analysis methodology grows in power, and the volume of data collected increases exponentially, the number and variety of roles in data science are also increasing significantly.

Our report reveals average data science salaries across the UK, as well as salary expectations for different data professionals. Overall, more than half of UK data jobs are located in London. Alongside London, there are concentrations of data roles in larger cities such as Birmingham, Manchester, Oxford and Cambridge. Outside of the big cities, companies – especially well-funded startups – are willing to pay above market price to attract talent. The number of job openings, however, is limited.

We have found that in 2020 there has been a striking, if not entirely surprising, shift towards remote roles. However, the long-term adoption of remote work is yet to be seen, and London still remains the unquestioned centre of the UK data sector.

Data engineers have the highest average salary across all levels, followed closely by data scientists. Some Chief Data Officer and Lead Data Engineer roles offer salaries of up to £200,000. Data analyst positions, typically considered to be the entry level for careers in data and analytics, pay much less on average than data scientist and data engineer jobs. London tops the list of high-paying locations, with a majority of £50,000+ and £100,000+ jobs based in the capital.

Our report examines in-demand skills across data science. In terms of required skills, Python, R and SQL are the three most popular programming languages for jobs in data.

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REPORT OVERVIEW

We have seen a surge in demand for data roles across analysis, engineering and data science. As we noted in our 2019 report, there is still a deficit in candidates coming up into entry level data roles, and in 2020 the salary levels are reflecting this trend. Data Scientists at junior and senior levels have seen a dramatic pay-rise in spite of the Covid-19 pandemic, suggesting that the demand for these skills has outweighed market uncertainty. Yet, we see a funnel effect has emerged at the senior level, and we have seen these salaries deflate across three data roles.

Research Methodology

We extracted thousands of job listings from the leading job board, and from many of our job collections, we collect and categorise the data into different subsets of data professions. We then divide the obtained data into many subgroups based on salary, locations, years of experience and skills required.

Job / Category	Junior	Middle	Senior
Data Analyst	£38,732 (4.15%)		£48,699 (-6.71%)
Data Engineer	£46,250 (12.66%)	£58,221 (-13.95%)	£74,376 (-11.77%)
Data Scientist	£49,843 (27.71%)	£54,137 (-16.24%)	£78,213 (-1.85%)

Data & Analytics Average Salary for UK Cities

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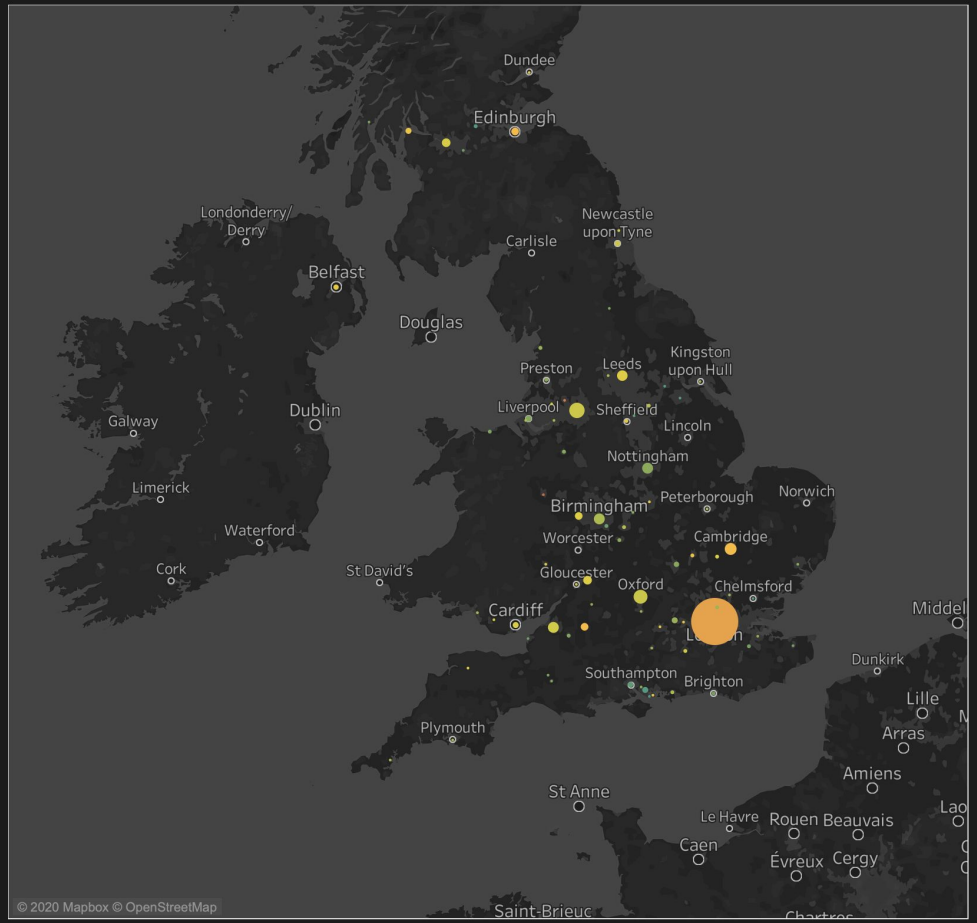

JOB DEMAND

36.8% of the job offers for all three roles - Data Analyst, Data Scientist and Data Engineer - are for London-based offices. This presents a staggering drop from our 2019 figures of 57.5%, due to the number of roles moving to be fully remote amidst the pandemic. In 2020, 16.5% of Data Analytics roles have been remote.

London is still the preeminent region for data roles, characterised by the highest average salaries for these roles, reaching over £77,000. This is up from £66,000 per annum. London has not been challenged by another emergent location, but rather by a national trend towards remote work.

Permanent data jobs are still most often located in big cities, with Manchester, Birmingham, Oxford, Leeds and Liverpool accounting for between 1.7% and 5.5.% of all Data Roles.

Interact with our map here

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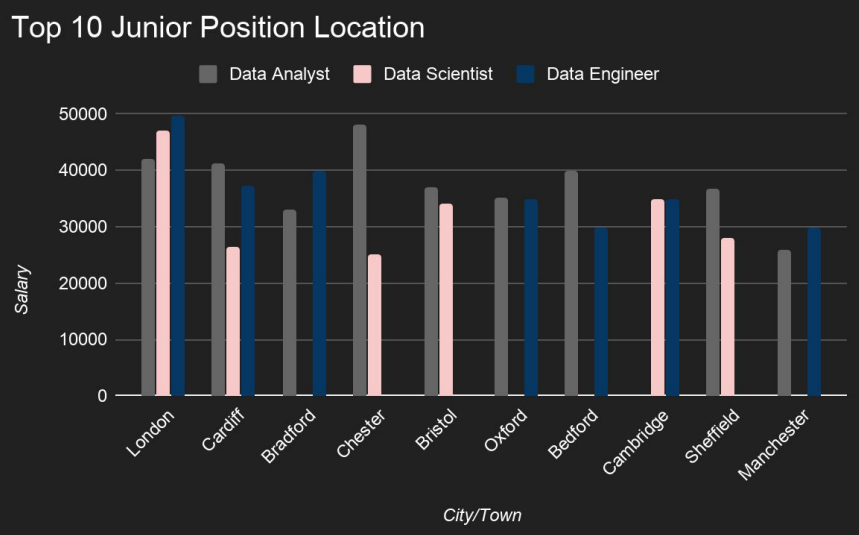
SALARIES ACROSS THE UK

Analysis of salary levels for different locations across the United Kingdom

LOCATION
JUNIOR LEVEL

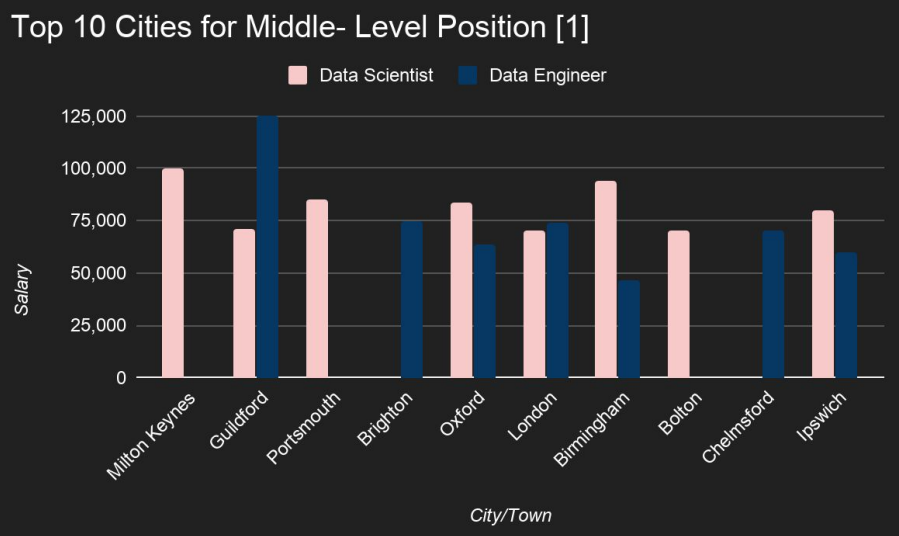


London has the highest average salary for junior positions, averaging from £45,233 for data analysts to £49,585 for Data Engineers.

Cities like Cardiff, Bristol, Oxford, Cambridge and Manchester are emerging as major markets for Data Analytics roles in particular.

We have found that, despite an upward trajectory in salaries in areas such as Bradford, Coventry and Cheltenham, these territories constitute well under 1% of total roles. As such, roles in these locations are highly dependent on job openings for regional firms.

LOCATION
MIDDLE LEVEL



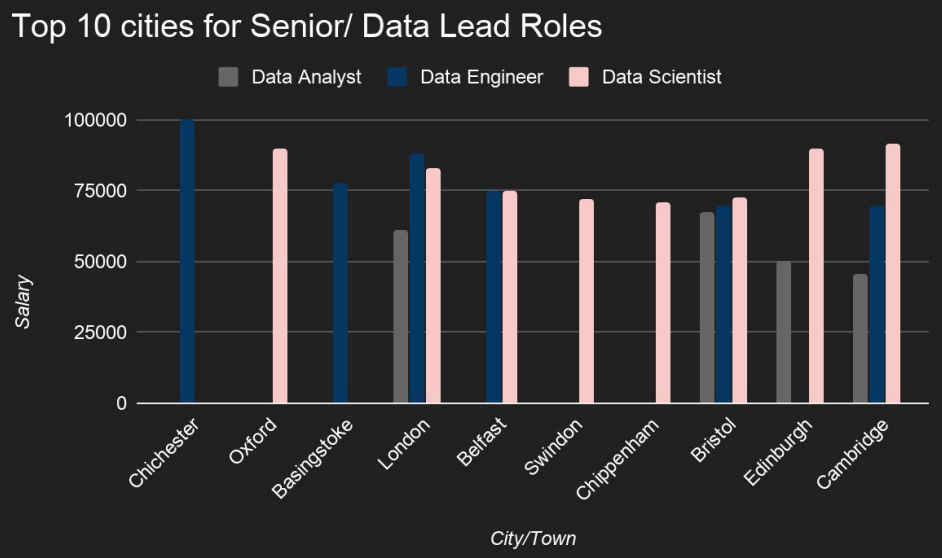
In a continuation big cities such as London, Birmingham and Oxford appear in the top 10. In London, mid-level data scientists can expect to earn an average of £73,507, climbing to £77,507 for data engineers.

Oxford and Birmingham have higher average salaries than London for data scientists, at £79,286 and £93,750 respectively.

Other notable cities are Guildford, Brighton, and Milton Keynes, where there are many big companies that have relocated to smaller towns. These companies are willing to pay a premium to attract top-tier candidates out of London.

[1] Data Analysts are not included because it is considered to be the entry level for the other two job titles

LOCATION
SENIOR LEVEL



Senior manager and data tech leads are in high demand to manage and guide their relatively young teams of data scientists. A senior data professional will have at least five years of experience, although most have 7-8 years of experience.

High-profile cities such as London, Oxford, Cambridge and Bristol all appear in the list. However, it is always a good idea to look out for potential roles around your area. Many companies are willing to pay competitive salaries to attract talents out of big cities, such as in Milton Keynes and Basingstoke.

Recruitment firms usually fill many of these top regional roles (senior or team lead), so maintaining good relationships with some of your local recruitment agencies is essential to attain your next senior role.

LONDON MARKET SCENE

57.5%

Of total data jobs are based in London

£65,000 per annum

Average salary for London data professionals

	Data Analyst	Data Engineer	Data Scientist
Average Annual Salary	£44,317	£77,632	£73,705
% per job title	42%	70%	61%

London is among the highest-paid cities for data roles. A majority of jobs (73.3%) offering a salary of £50,000+ are based in the capital - vastly more than Manchester, which boasts the second-highest proportion of £50,000+ jobs (2.3%).

Three-fifths (61%) of data engineer jobs two-thirds (70%) of data scientist jobs are based in London. Jobs for data analysts, which require less technical know-how, are more widely spread around the UK - although two-fifths (42%) of positions are still located in London.

Data engineers enjoy the highest average annual salary (£77,632), followed closely by data scientists (£73,705). Unsurprisingly given the entry-level nature of the role, data analysts have the lowest average salary (£44,317).

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DATA CAREER VIEWPOINT

Working as a data analyst, data scientist or data engineer, what will the career progression look like?

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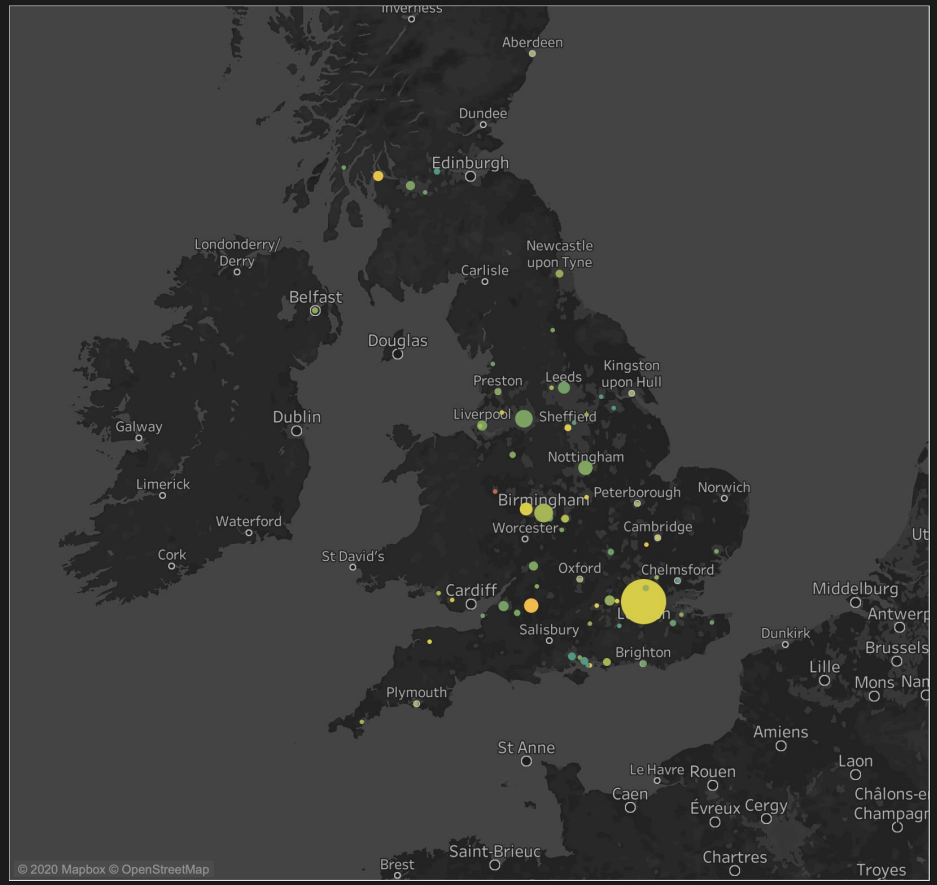
Data Analyst Average Salary by UK Cities



Map based on Longitude (generated) and Latitude (generated). Colour shows average of Annual Salary. Size shows % of Total Count of Annual Salary. Details are shown for City. The data is filtered on Category1, which keeps Data Analyst.

DATA ANALYST LOCATION

Four in every ten UK data and analytics jobs are in London, where the average salary of £44,317 is one of the highest in the country.

Birmingham (5.57% of total data analyst jobs) comes in second place with an average salary of £36,343, followed closely by Manchester (5.32%), where the average wage stands at £29,652.

Other notable cities and towns are Milton Keynes (2.78% - average salary £33,818), Oxford (2.53% - average salary £35,119), and Nottingham (2.28% - average salary £33,858).

DATA ANALYST PROGRESSION

£38,732
per annum

Average salary for a **junior/ mid-level** data analyst

£48,699
per annum

Average salary for **senior** data analyst

£9,968
per annum

Average difference between junior and senior-level data analyst salaries

£120,000
per annum

Maximum salary for a global data analytics lead

Data Scientist Average Salary by UK Cities

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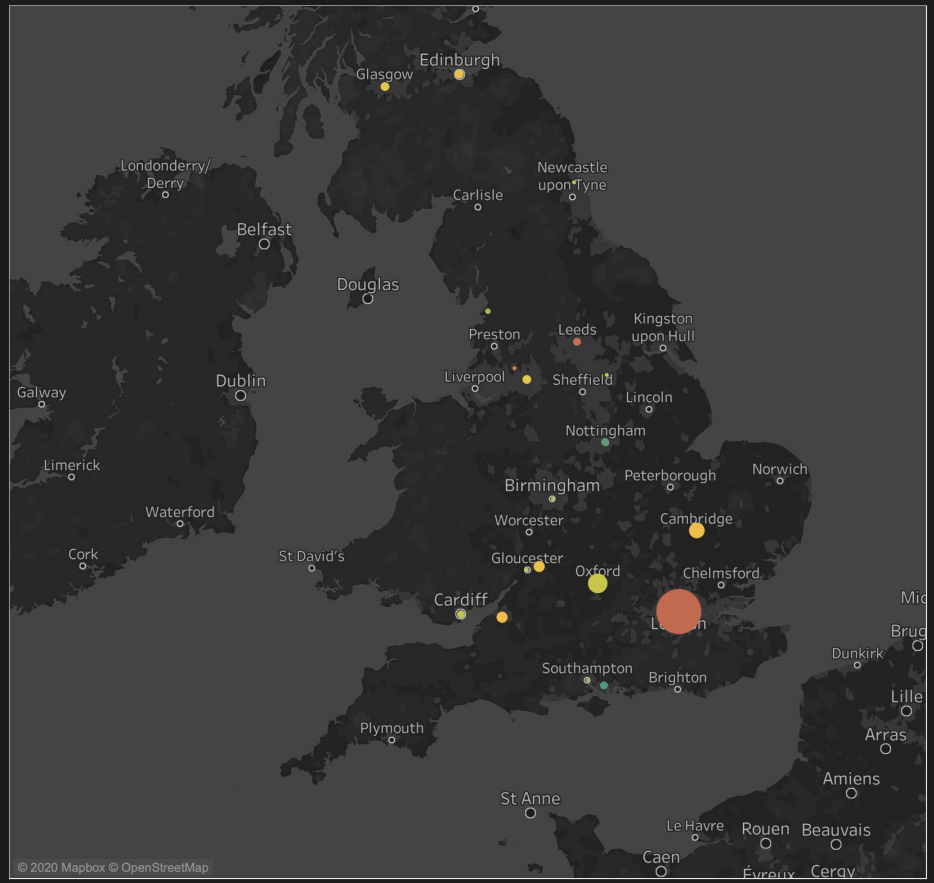

Map based on Longitude (generated) and Latitude (generated). Colour shows average of Annual Salary. Size shows % of Total Count of Annual Salary. Details are shown for City. The data is filtered on Category1, which keeps Data Scientist.

DATA SCIENTIST LOCATION

Data scientists enjoy an average salary of £73,705 in London, where nearly two-thirds (61.43%) of all data science jobs are based..

After the capital, the cities with the most data science positions are Manchester (3.71% - average salary £58,562), Cambridge (3.43% - £67,149), Bristol (2.86% - £55,500), and Oxford (2.00% - £79,286).

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DATA SCIENTIST PROGRESSION

£49,843
per annum

Average starting salary for data scientist

£78,213
per annum

Average **senior salary** for data scientists

£28,370
per annum

Average difference between junior and senior-level salaries

£200,000
per annum

Maximum salary for a chief data officer

Data Engineer Average Salary by UK Cities

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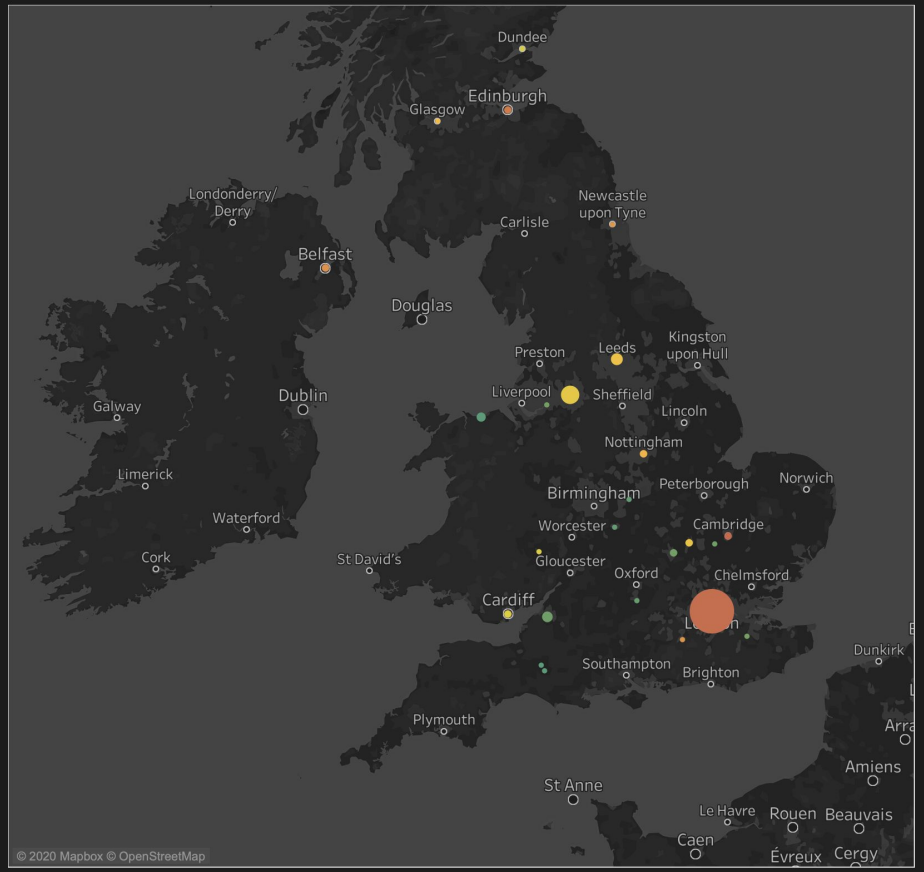


Map based on Longitude (generated) and Latitude (generated). Colour shows average of Annual Salary. Size shows % of Total Count of Annual Salary. Details are shown for City. The data is filtered on Category1, which keeps Data Engineer.

DATA ENGINEER LOCATION

£77,507 is the average data engineer salary in London, while over 70% of all job positions are London-based.

Most data engineering jobs are in England, but some are in Scotland and Northern Ireland - primarily in Edinburgh and Belfast.

There are some full-time roles around the UK for data engineers, mainly in high-profile cities such as Cambridge, Oxford, Manchester and Leeds.

DATA ENGINEER PROGRESSION

£46,250
per annum

Average starting salary for data engineers

£74,376
per annum

Average senior salary for data engineers

£28,126
per annum

Difference between entry and senior-level data engineer salaries

£120,000
per annum

Maximum salary for a lead data engineer

SALARY LEVEL

Where are the £50,000+ and £100,000+ jobs located?

JOBS **£50,000+**

London is the area where the majority of data roles with £50,000+ salaries are located (53.23%). The major shift that 2020 has seen in in favour of remote roles, with more than 6x as many remote roles as roles in Manchester.

Among these top 10 locations, Oxford is willing to pay the highest salary, with an average of £76,250, followed by London at £75,452.

Locations	Average Annual Salary	Percentage
London	£75,452	53.23%
Remote	£69,460	23.27%
Manchester	£58,067	3.71%
Cambridge	£64,178	3.71%
Leeds	£67,286	1.73%
Chippenham	£66,118	1.73%
Edinburgh	£62,667	1.49%
Bristol	£62,500	1.49%
Oxford	£76,250	0.99%
Glasgow	£58,784	0.99%

DATA ANALYST
£50,000+

London is where the vast majority of £50,000+ data analyst jobs are located (74%).

Six locations each boast a 2.47% share of data analyst jobs with salaries of more than £50,000, while a further three cities have a 1.23% share.

Locations	Percentage
London	74.07%
Birmingham	2.47%
East Sussex	2.47%
Edinburgh	2.47%
Gloucester	2.47%
Manchester	2.47%
Oxford	2.47%
Brighton	1.23%
Bristol	1.23%
Cardiff	1.23%

City	Percentage
London	72.30%
Manchester	3.24%
Cambridge	3.24%
Oxford	2.16%
Leeds	1.80%
Bristol	1.80%
Surrey	1.44%
Birmingham	1.44%
Chippenham	1.08%
Belfast	1.08%

DATA SCIENTIST
£50,000+

Again, most of the £50,000+ data scientist roles are based in London (72.3%).

However, there is a slightly wider geographical spread than with £50,000+ data analyst and data engineer roles, with leading big cities such as Manchester and Cambridge each having 3.24% of total positions.

Other cities such as Oxford (2.16%), Leeds (1.8%) and Bristol (1.8%) also appear in the top 10.

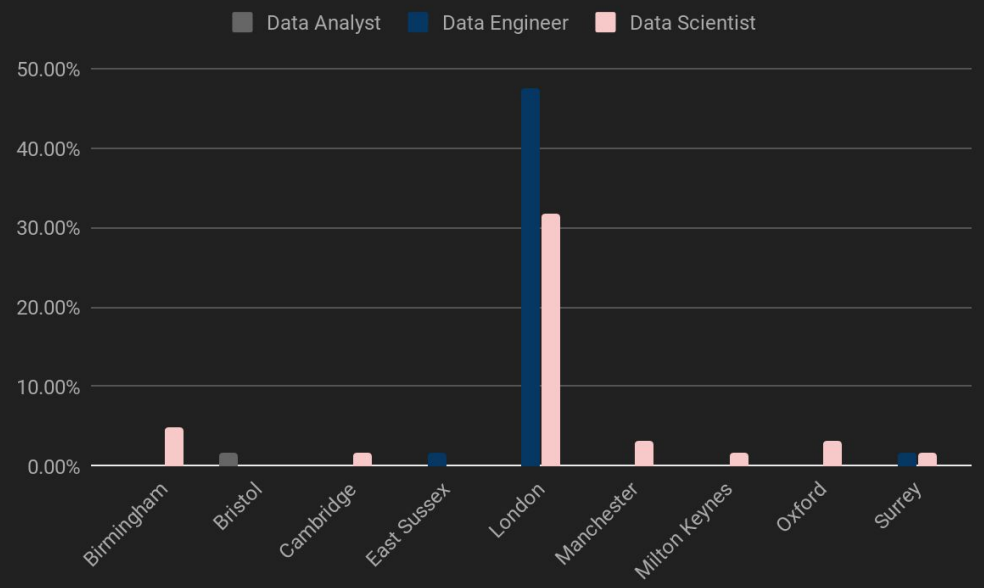
DATA ENGINEER
£50,000+

With the average starting salary for junior data engineers standing at £41,000 per annum, most data engineer jobs are in London.

Outside of London, most £50,000+ jobs are located in high-profile cities like Oxford (1.76%), Belfast (1.32%) and Cambridge (1.32%).

High-paying roles can also be found in cities such as Brighton and Bristol, where employers typically prefer contractors to full-time positions.

Locations	Percentage
London	78.85%
Oxford	1.76%
Belfast	1.32%
Cambridge	1.32%
Leeds	1.32%
Manchester	1.32%
Brighton	0.88%
Bristol	0.88%
Cheltenham	0.88%
East Sussex	0.88%



£100,000+ **LOCATION**

London, not surprisingly, is where most of the top jobs can be found.

94% of data engineering jobs with a salary of £100,000+ are in London, representing nearly half of total jobs with a £100,000+ salary. Meanwhile, 67% of £100,000+ data scientist jobs are based in London. There are also some £100,000+ jobs in other big cities, such as Birmingham, Manchester, Oxford and Cambridge.

For data analysts, there is only one job with a listed salary of more than £100,000, which is in Bristol (for a global head of analytics). This is an outlier, as senior data analyst positions only offer an average annual salary of £52,000. Data analyst, after all, is considered to be an entry role for data science or data engineering.

COMMON AND HIGHEST-PAID **SKILL SET**

What languages are sought after by data employers?

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TOP 10 SKILLS

Skill	Percentage
Excel	52%
SQL	34%
Python	16%
PowerBI	9%
R	9%
Tableau	8%
Scala	4%
AWS	2%
Java	1%
Matlab	1%

Data analyst is the entry-level role for careers in data analytics, so the requirement is comparatively simple.

Most data analysts are only required to be efficient in Excel. Some roles also prefer candidates to know SQL to extract and input into the company's SQL server. Even though some exposures to Python, R, and SAS are preferable, many firms don't require it, and they can train you at the job.

Some visualisation knowledge - such as Tableau or Power BI - can also be valuable, and potential employers are likely to favour candidates with such skills.

DATA ANALYST HIGHEST EARNING SKILLS

The highest-paid skill is AWS even though it is only mentioned in 2.28% of all data analyst job postings, up from £47,857 in 2019. This uptick reflects a demand for cloud expertise across the whole data sector.

Apache Hadoop is a skill that can lead to a very high salary of £50,667, but is expected by only 0.76% of roles. So too are SAS and relational database language SQL, with the latter expected of almost 33% of Data Analyst roles.

Solid knowledge of programming language Python, R as well as some data visualisation skills in PowerBI and Tableau, are also beneficial for well-paid data analyst roles.

Language	Percentage	Average
AWS	2.28%	£56,211
Hadoop	0.76%	£50,667
HIVE	0.76%	£49,667
Java	1.52%	£47,369
C#	0.25%	£44,216
Tableau	8.10%	£43,122
R	8.61%	£42,106
SQL	33.67%	£40,353
Python	16.20%	£40,227
Excel	51.65%	£39,115

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DATA SCIENTIST
TOP 10 SKILLS

Python is becoming a must-know skill for data scientists, with more than 66% of job posts requiring or preferring candidates to have Python. R (27%) is also a popular choice for data science, with its extensive statistical and data visualisation libraries. Java and Scala are two other popular programming languages for data scientists, as they can be faster than Python or R when dealing with large datasets, or when being used with Hadoop or Spark.

For data warehouse / big data technologies, Spark - with its real-time data processing - is highly desirable skills.

With an increase in the adoption of cloud computing services, data scientists are gradually expected to know about AWS (14%) and Azure (8%). Google Cloud has emerged as a lucrative skill alongside these cloud suites, but has not yet reached their popularity.

Skills	Percentage
Python	66%
Excel	35%
SQL	30%
R	27%
AWS	14%
Spark	11%
Java	10%
Scala	9%
Tensorflow	9%
Azure	8%

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DATA SCIENTIST HIGHEST EARNING SKILLS

Language	Percentage	Average
Kafka	2.86%	£91,275
Scala	9.43%	£73,335
Spark	11.14%	£71,387
Azure	8.57%	£69,834
AWS	14.29%	£69,490
HIVE	2.00%	£65,143
Java	10.29%	£63,894
Tensorflow	9.14%	£62,468
Python	65.71%	£60,464

Kafka leads this list, despite lagging behind Python and Scala in popularity, as a highly-sought after skill with an average salary of £91,275.

Tensorflow, HIVE, and Spark - all popular data warehouse platforms for data engineers - are rarely required for data scientist positions. However, when the job requires these skills, it is generally well-paid.

Java and Scala, typically used in conjunction with big data frameworks and software, are also among the top 10 highest-earning skills.

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DATA ENGINEER
TOP 10 SKILLS

The most significant trend of this year has been the increased prominence of SQL, surpassing Python as the most sought after language. The shift is striking but perhaps unsurprising in an industry trending towards big data.

Python and Scala are the other most popular languages. Python is unsurprisingly popular for data engineers, as it is a common way to build ETL frameworks using Airflow, or to interact with different APIs. Scala and Java are also common requirements to use with data warehouse tools such as Spark or Hadoop.

Apache Hadoop is a must-learn for any data engineer, with many popular real-time data processing frameworks built into it, including Spark and Kafka. Of the two, Spark is the most popular.

Cloud-based techs are another increasingly common prerequisite for data engineers, with AWS being the most popular and Microsoft Azure both surging in popularity.. Google Cloud is being adopted by some firms, but still lags behind AWS and Azure..

Skill	Percentage
SQL	63%
Python	55%
AWS	39%
Azure	30%
Excel	27%
Scala	25%
Spark	25%
Java	18%
Kafka	16%
Hadoop	16%

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DATA ENGINEER HIGHEST EARNING SKILLS

Language	Percentage	Average
C++	3.93%	£80,714
C#	10.11%	£77,500
Kafka	16.85%	£76,165
Tensorflow	1.12%	£75,000
NoSQL	10.67%	£73,250
Linux	3.95%	£72,857
AWS	39.33%	£70,638
MapReduce	0.56%	£70,000
Spark	25.84%	£68,984
Tableau	14.04%	£68,780

Even though only 3.93% of job postings required applicants to know C++, it is the highest paying skill for data engineers with an average salary of £80,714. C# is the second-highest-paying skill, with an average salary of £77,500. This is a significant shift from 2019, in which Tensorflow and Hadoop led this list; now, Tensorflow has plummeted in popularity to 1.12%.

Other popular data warehousing skills for data engineers, such as Kafka, Tensorflow, NoSQL and AWS, also make the top 10.

AWS has seen a substantial rise in its popularity in job postings, reflecting a data engineering landscape in which proficiency in cloud applications is more essential than ever before.

CONCLUSION

Our data has shown a strong year for careers in the growing Data sector, undaunted by the Covid-19 pandemic. Even in a year characterised by remote work and in spite of Britain's exit from the EU, we have seen London hold firm as the central European city for careers in data.

The central driving force behind the demand for data professionals is the continued growth of the Fintech sector. Banking, credit and lending within the sector requires a particularly high level of specialism in data insights, which have enabled a number of high-profile firms to scale bespoke consumer experiences.

Significantly, while these skills have always been highly sought-after, until relatively recently only large, established enterprises and digital natives have been prepared to make the required investment.

Now, companies are increasingly aware that they simply cannot compete without a data offering of their own.

This is, of course, great news for candidates with the right skills. Candidates with experience working with big data, SQL databases and machine learning remain highly in demand. Experience with cloud platforms, and with object-orientated programming languages remain in especially high demand. As demand continues to dramatically outstrip supply in the talent market, we fully expect salaries to climb further.

Whether you are a data analyst, scientist or engineer looking for a new challenge, or a client desperate to access data skill sets, Mana Search is ideally positioned to help. Our mission is to unlock growth for disruptive FinTechs by connecting them with expert talent. Get in touch with the Mana team to learn what we can do for you.

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ABOUT US

At Mana Search, our mission is to unlock growth for disruptive FinTechs by connecting them with expert talent. We are based in London, specialising in placing senior and C-suite candidates into Dev, Data and Product roles.

If you wish to ask us about any of the figures or trends identified by this report, feel free to give us a call or drop us an email.

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