

Karlijn Willems
November 10th, 2015

MUST READ LEARNING DATA SCIENCE +1

The Data Science Industry: Who Does What (Infographic)

This infographic compares the roles of data scientists, data analysts, data architects, data engineers and more in the data science industry.

Nowadays, the data science field is hot, and it is unlikely that this will change in the near future. While a data driven approach is finding its way into all facets of business, companies are fiercely fighting for the best data analytic skills that are available in the market, and salaries for data science roles are going in overdrive. Companies' increased focus on acquiring data science talent goes hand in hand with the creation of a whole new set of data science roles and titles. Sometimes new roles and titles are added to reflect changing needs; other times they are probably created as a creative way to differentiate from fellow recruiters. Either way, it's hard to get a general understanding of the different job roles, and it gets even harder when you're looking to figure out what job role could best fit your personal and professional ambitions.

The Data Science Industry: Who Does What

DataCamp took a look at this avalanche of data science job postings in an attempt to unravel these cool-sounding and playful job titles into a comparison of different data science related careers. We summarized the results in our latest infographic "*The Data Science Industry: Who Does What*".

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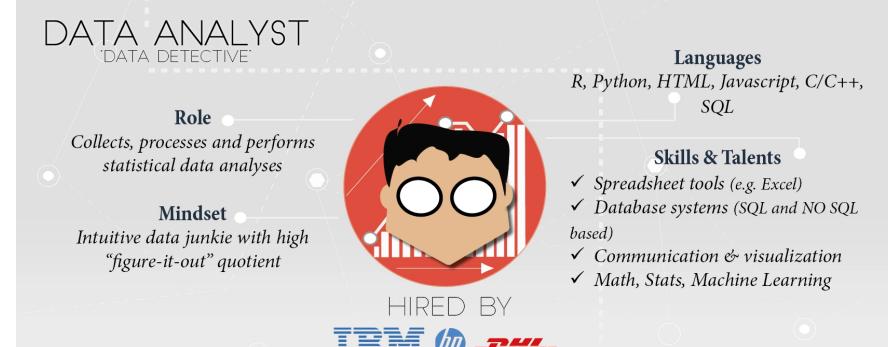
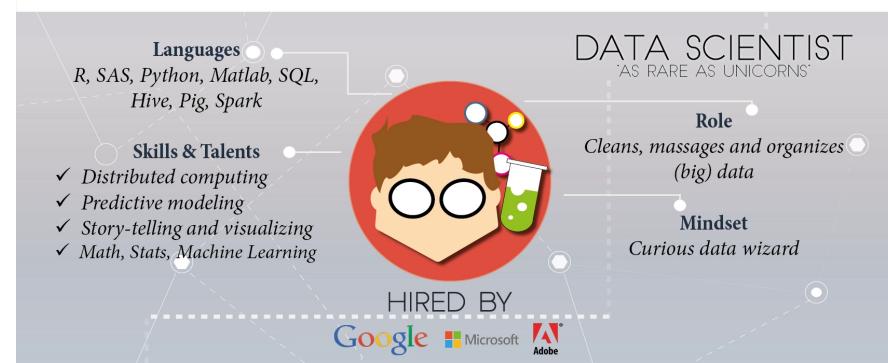
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Learn R & Data Analysis
By Doing

THE DATA SCIENCE INDUSTRY WHO DOES WHAT

A LOOK AT THE KEY ROLES IN DATA SCIENCE

The vast range of careers in the data science industry is accompanied by an avalanche of job postings. DataCamp took a closer look at recent data science job postings to learn more about the differences between various roles in the industry and to unravel the meaning behind many cool-sounding job titles.



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Load (ETL), spreadsheets and BI tools

- ✓ Data modeling
- ✓ Systems development

HIRED BY



Inquiring ninja with a love for data architecture design patterns

DATA ENGINEER
'SOFTWARE ENGINEERS BY TRADE'

Role
Develops, constructs, tests and maintains architectures (such as databases and large-scale processing systems)

Mindset
All-purpose everyman

Languages
SQL, Hive, Pig, R, Matlab, SAS, SPSS, Python, Java, Ruby, C++, Perl

Skills & Talents

- ✓ Database systems (SQL & NO SQL based)
- ✓ Data modeling & ETL tools
- ✓ Data APIs
- ✓ Data warehousing solutions

STATISTICIAN
HISTORIC LEADERS OF DATA

Role
Collects, analyzes and interprets qualitative as well as quantitative data with statistical theories and methods

Mindset
Logical and enthusiastic stats genius

Languages
R, SAS, SPSS, Matlab, Stata, Python, Perl, Hive, Pig, Spark, SQL

Skills & Talents

- ✓ Statistical theories & methodology
- ✓ Data mining & machine learning
- ✓ Distributed Computing (Hadoop)
- ✓ Database systems (SQL and NO SQL based)
- ✓ Cloud tools

DATABASE ADMINISTRATOR
'DATABASE CARETAKER'

Role
Ensures that the database is available to all relevant users, is performing properly and is being kept safe

Mindset
Master of Disaster Prevention

Languages
SQL, Java, Ruby on Rails, XML, C#, Python

Skills & Talents

- ✓ Backup & recovery
- ✓ Data modeling and design
- ✓ Distributed Computing (Hadoop)
- ✓ Database systems (SQL and NO SQL based)
- ✓ Data security
- ✓ ERP & business knowledge

BUSINESS ANALYST
CHANGE AGENT

Role

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✓ *Business intelligence understanding*
 ✓ *Data modeling*

HIRED BY **UBER** **DELL** **ORACLE**

DATA AND ANALYTICS MANAGER

DATA SCIENCE TEAM LEADER¹



Role
Manages a team of analysts and data scientists

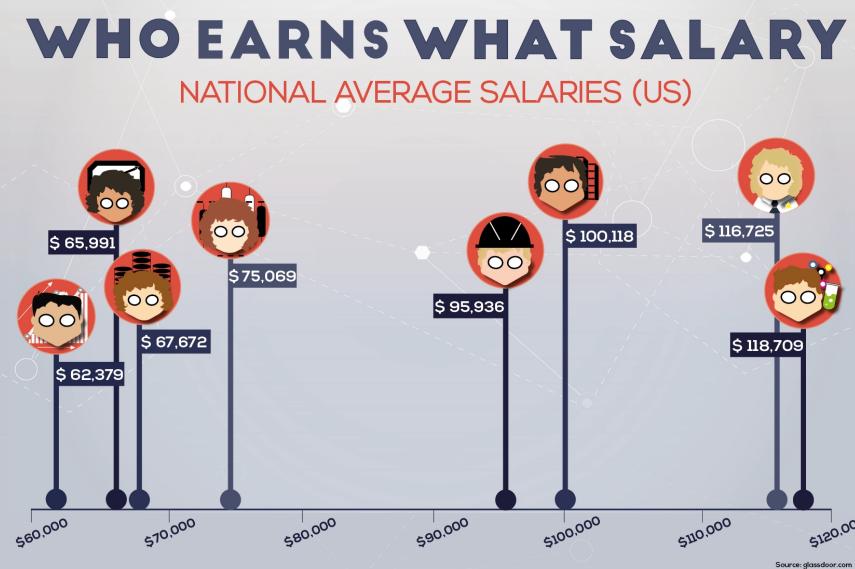
Mindset
Data Wizards' Cheerleader

Languages
SQL, R, SAS, Python, Matlab, Java

Skills & Talents

- ✓ Database systems (SQL and NO SQL based)
- ✓ Leadership & project management
- ✓ Interpersonal communication
- ✓ Data mining & predictive modeling

HIRED BY **coursera** **slack** **MOTOROLA SOLUTIONS**



FIND YOUR DATA SCIENCE DREAM JOB TODAY!

BUT REMEMBER...

- ✓ There isn't a generally accepted definition of data science and its roles (yet)
- ✓ Make sure to ask about details on what projects and

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REFERENCES

- <http://www.datasciencecentral.com/profiles/blogs/what-roles-do-you-need-in-your-data-science-team>
- <http://blog.udacity.com/2014/11/data-science-job-skills.html>
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In this infographic we compare the roles of data scientists, data analysts, data architects, data engineers, statisticians and many more. We have a look at their roles within companies and the data science process, what technologies they have mastered, and what the typical skillset and mindset is for each role. Furthermore, we look at the top employers that are currently hiring these different data science roles and how the average national salaries of these roles map out against each other. Hopefully this infographic will help you to better understand the different job roles that are available to data passionate professionals. If you want to learn more on data science, make sure to check out [DataCamp's interactive R and data science tutorials](#) and join 220,000 data enthusiasts! Interested in some of our other infographics? Check out [Statistical Language Wars](#), [How to Become a Data Scientist in 8 Easy Steps](#) and [R vs Python](#).

COMMENTS

Uriel Orozco

The link to the info graphic is not working, please share the link.

▲ 1 ▶ REPLY | 29/03/2018 02:20 AM

Karlijn Willems

Hi Uriel - We had some issues with the image hosting. The image should be back up!

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Moses Njenga

Great article. I have already taken the Data Scientist career track with Python with DataCamp and I want to do a masters degree in data science, which university would you recommend for distance learning/online study?

Thanks Karljin.

▲ 1 | 19/06/2019 04:34 AM

alicetaylor Taylor

great article, I was very impressed about it, wish you would have stayed next share

strike force heroes 3

▲ 1 ▶ REPLY | 07/04/2019 07:45 PM

pham yen

I am happy to find this post very useful for me

potty racers 2

▲ 1 ▶ REPLY | 09/04/2019 01:52 AM

Na ta

Thanks for the useful information you shared. get on top

▲ 1 ▶ REPLY | 10/04/2019 08:38 PM

susanammmsgomes

Hi, Karljin!

I loved your article, it was very useful to clarify my questions about how to start exploring the field of Data Science!

I just have one question: the information about the salaries you presented in one of the images were collected from glassdoor in 2015?

▲ 2 ▶ REPLY | 23/05/2018 09:41 AM

Norma Carter

What a great post! Incredibly helpful especially because of its inclusion of large datasets. [soundcloud downloader](#) 320kbps

▲ 1 ▶ REPLY | 04/12/2018 09:16 PM

Cristina Zenteno

Nice article, however I have found some post jobs for Business Analyst described as Data Analyst, I guess some companies doesn't have very clear the differences.

▲ 2 ▶ REPLY | 31/05/2018 12:05 PM

linzhangwfu

Hi Karljin, great article! I love these infographic role pictures. Could you show me the link to do these graphics? Thanks a lot!

▲ 1 ▶ REPLY | 10/07/2018 07:40 PM

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Eduardo Andrade Giménez

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Michle cyrus
Data Science and AI are next generation best Weapons. [Twitter](#) [video](#) [Downloader](#)

▲ 1 ▶ REPLY | 08/01/2019 10:23 PM

melis kalay
This is the best recap of very useful references around "Data" roles, and still very useful content considering it was written more than 3 years ago!

▲ 1 ▶ REPLY | 21/01/2019 07:56 AM

thu trang
I think this is an interesting industry

gun mayhem 2

▲ 1 ▶ REPLY | 18/04/2019 09:08 PM

Natasha aiken
I think what is bound to happen is that there will be a (relative) couple of scholarly scientists who know the field in and out, a ton of architects who take care of the more mind boggling issues that include a thorough comprehension of AI (past simply profound learning), and after that a multitude of specialists [Assignment Help Online](#) | [AssignmentGlobe](#) who comprehend the nuts and bolts of AI and the distinction between a CNN and a RNN yet most likely won't build a portion SVM in their lives.

▲ 1 ▶ REPLY | 26/04/2019 04:29 AM

taylor mason
of course like your web-site however you have to test the spelling on quite a few of your posts. A number of them are rife with spelling issues and I find it very troublesome to inform the reality on the other hand I will definitely come back again. [cineblog01](#)

▲ 1 ▶ REPLY | 15/05/2019 09:53 AM

alicetaylor taylor
it is useful for me

papas games

▲ 1 ▶ REPLY | 22/05/2019 01:27 AM

Aman Sarviya
Hello, @KarljinWillems

Thank you for such a nice infographic comparison of the roles of a data science industry. This infographic will definitely help us to better understand the different job roles that are available to data passionate professionals. As we know Data Science is the hottest job these days. The data science [jobs](#) [trends](#) and [salary](#) are increasing day by day. The number of roles for Data Scientists has grown by 650% since 2012 About 11.5 million jobs will be created by 2026 according to the U.S.

▲ 1 ▶ REPLY | 30/05/2019 12:12 AM

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