Data Analyst vs Data Scientist: Industry Perspectives

Both "Data Analyst" (DA) and "Data Scientist" (DS) are titles that vary greatly between industries and even amongst individual organizations within industries. As the roles behind titles change over time, it is natural for some teams to ask themselves the following questions: should we have distinct roles or just stick to one? How would we differentiate the roles in a way that fulfills our organization's needs and is generally consistent with similar organizations? Do we want to consider a DS to be equivalent to a Sr. DA, the only difference being the title? Answering these questions not only establishes clear responsibilities and expectations, but enables hiring managers and recruiters to communicate clearly with potential applicants in the future (in job postings, for example).

Data Analyst vs. Data Scientist - What's the Difference? - Simplilearn

https://www.simplilearn.com/data-analyst-vs-data-scientist-article *

Dec 13, 2017 - Instead, a data analyst typically works on simpler structured SQL or similar databases or with other BI tools/packages. The data scientist role also calls for strong data visualization skills and the ability to convert data into a business story.

Data Scientist vs. Data Analyst: What's the Difference?

https://www.northeastern.edu/graduate/blog/data-scientist-vs-data-analyst/
Aug 17, 2017 - While data analysts and data scientists both work with data, the main difference lies in what they do with it. Data analysts examine large data sets to identify trends, develop charts, and create visual presentations to help businesses make more strategic decisions.

Crucial Differences Between Data Scientist and Data Analyst | Edureka

https://www.edureka.co/blog/difference-between-data-scientist-and-data-analyst/ ▼ Mar 4, 2014 - Data Scientist and Data Analyst are the top job titles in the IT industry. This post talks about the crucial differences between the two top job ...

What is the difference between a data analyst and a data scientist ...

https://www.quora.com/What-is-the-difference-between-a-data-analyst-and-a-data-scie... ▼
Jul 9, 2016 - Instead, a Data Analyst typically works on simpler structured SQL or similar databases or with other BI tools/packages. The data scientist role also calls for strong data visualization skills and the ability to convert data into a business story. A data analyst is normally not.

Which career is more promising: data scientist or ... 19 answers Aug 5, 2017
What does a data scientist do? Is it different from ... 7 answers May 5, 2017
What is the difference between a data scientist and a ... 5 answers May 3, 2017
How to grow from a data analyst to a data scientist 10 answers Aug 31, 2014
More results from www.guora.com

Blurred Lines: Data Analyst vs Data Science – Towards Data Science

https://towardsdatascience.com/blurred-lines-data-analytics-vs-data-science-12ff92a3b... ▼
Feb 6, 2018 - In the world of exponential data growth, companies are turning to 2 jobs to solve some of their biggest problems, Data Analyst (or BI Engineer) ...

Data scientists vs data analysts: Why the distinction matters 2018 ...

https://www.import.io/post/data-scientists-vs-data-analysts-why-the-distinction-matters/ ▼ Oct 2, 2015 - As a relatively new – but already highly sought after – position, it can be hard to know where Data Analytics ends and Data Science begins.

3 Data Careers Decoded and What It Means for You | Udacity

https://blog.udacity.com/2014/12/data-analyst-vs-data-scientist-vs-data-engineer.html ▼
Dec 10, 2014 - Data Analyst vs Data Scientist vs Data Engineer. All that data crunching requires an army of data masters. Translation: there's never been a ...

Data Scientist Vs Data Analyst - YouTube



https://www.youtube.com/watch?v=_Vi9W_2cxYA

Oct 16, 2017 - Uploaded by Ben G Kaiser

In this video I want to talk about the differences between a data scientist and a data analyst, is data science a ...

"data scientist vs data analyst" search results

Search the Internet for "data scientist vs data analyst" and you will find plenty of people who don't know what the difference is (nor if there even is one anymore), and you will find plenty of

people who think they know the definitions and differences. You will find an abundance of opinions but very little consistency! When I asked my followers on social media what they personally think the differences are, not everyone shared the same opinion but some interesting camps of thought emerged.

This is my effort to summarize the many replies I received, so here are certain important points, recurring themes, and somewhat overlapping camps of thought:

- Single/primary distinction: DS is a DA who can code
 - In summary: the kinds of questions that a DA can answer and the kinds of tasks a DA can work on are a subset of DS's because GUI tools limit what can be done, but a DS by knowing programming can answer way more kinds of questions and work on way more kinds of tasks.
 - Leads to reproducibility¹, scalability
 - See discussion with Hadley Wickham
- Single/primary distinction: statistical and machine learning (ML) modeling
 - o "whether you worked on code / models in production pipelines"²
 - o See thread of responses by Renee M. P. Teate
 - o "not all DS work requires ML but ML is required to be a Data Scientist"
- No DAs, just two types of DSs: "Type A" vs "Type B" (refer to <u>Doing Data Science at</u> Twitter) came up a few times
- Emily Robinson brought up that "Data Scientist" is now also used as an umbrella term and specialties are specified in the title as needed⁴
 - e.g. Data Scientist, Algorithms; Data Scientist, Analytics; Data Scientist,
 Inference (see <u>Airbnb's Data Science and Analytics Department's careers page</u>)
- Some big tech companies like Facebook, Spotify, and some departments within Apple are moving away from having DAs to just having DSs⁵
 - o Lyft has posted a really thorough explanation of their reasoning
- Practical considerations for NY/SF/Austin tech scene:
 - o "DS title will need a higher salary."
 - o "You will lose talent because of the DA title. It is seen as less prestigious."
 - o "You may have to work harder for diverse pool of applicants w/ DS title."
 - "That latter comes from one company I know who's had a harder time getting female applicants for DS positions vs DA (when they're fairly similar responsibilities)" [6]
- Lucas Meyer voiced support for a classic: Drew Conway's infamous Venn diagram⁷
- A coworker of mine shared that at one of his previous employments his organization identified three data scientist personas/profiles:
 - **DS, Operations** provides data & insights for resourcing decisions through ad-hoc analyses, dashboards, defining KPIs, and A/B testing.
 - This is the role of a **Data Scientist in Product** who creates reports and dashboards for management and executives. - MP
 - DS, Product delivers data science as product (and not to be confused with Data Scientists in Product). These folks build predictive models, AIs, matchmaking systems.

- In some orgs this might be an ML Engineer or an AI Engineer or just a Data Scientist? - MP
- o **DS, Research** experiments and innovates. Not everything they work on ends up in production or utilized, but they are free to be creative and take chances.
 - In some orgs this might be the **Research Scientist**? MP
- Thinking of it this way, you might envision a scenario/pipeline wherein a Research DS prototypes a new recommender system (RS) algorithm, then an Operations DS helps determine (through A/B testing and qualitative user research together with a Design/UX Researcher) whether it's worth the costs to productionize (perhaps with the input of a Business/Financial Analyst), and then a Product DS scales the RS (possibly in collaboration with a Data Engineer) and deploys it to production. MP

Closing thoughts

I hope for some that this is an eye-opening moment and that they now realize that there's no single distinction everyone agrees on. Everyone is coming into it with their own backgrounds, experiences, thought processes, and ideas. None of these are wrong! So if you're in a hiring position, please remember to be specific when writing a job description. You can't just write "Data Analyst" or "Data Scientist" at the top and expect everyone else to share your assumptions, it's a recipe for misunderstanding and failure.

I would like to thank everyone who responded, and especially <u>Emily Robinson</u> and <u>Renee M. P. Teate</u>. Thank you everybody for taking the time to write and in some cases discuss nuances in spun-off threads! If you want to explore all the replies yourself, here's <u>root</u>.

I would also like to point out that is not even representative of how data professionals perceive these roles globally. All of the responses were from English-literate people, most (if not all) of the responses were from people living and working in U.S., and many of them are specifically people who follow me on Twitter. I know for a fact that there are so many more data professionals (data engineers have opinions on this too!) who aren't in any of those groups. These are professionals who have their own perceptions, who operate in different cultures, under different expectations all across the world, and someone out there is probably writing a similar post within their own community.