Data Science vs Software Engineering | Should You Consider Data Science As A Software Engineer?

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In 2009, Google's Chief Economist claimed "The sexy job in the next 10 years will be statisticians." Nearly a decade later, his prediction is proving to be true—though we now call them data scientists.

Hired's 2018 State of Salaries Report found that data analytics roles pay similarly to software engineering roles, both bringing in an average of $137K in 2017 and tracking similarly in past years. In 2015, software engineering paid an average of $129K while data analytics paid $133K; In 2016, these numbers were $131K and $132K, respectively.

So with similar (and sometimes higher) salaries, should software engineers consider careers as data scientists? As with most everything, it depends... but here we'll review some of the factors to consider as you map your career path going forward.

Data isn't your thing? No problem

As the world becomes increasingly more data-driven, there's no doubt that at least the basics of working with data will be important in any quantitative career. But if you're a software engineer who'd rather not spend the time and effort to beef up your data skills, rest assured that your career path can still be a solid one.

Pure software engineers have plenty of roles to fill outside of data science, from frontend development to infrastructure and devops roles.

And while data analytics certainly pays well, software engineering roles of all types are still in higher demand, according to our most recent analysis. So if machine learning isn't what you're interested in, don't stress too much about it—and spend your spare time instead developing expertise in an area you *are* interested in.

Decide where you want to position yourself at a company

If you fancy yourself a lifetime independent contributor, you're best off picking the role that most closely aligns with your interests. But for everyone else, there's a key consideration around how you want to fit within the company, and to what extent you'd like to be involved with business analysis and decision-making.

As a software engineer, you'll generally be closer to the product and your skills will be leveraged to make those products—whether consumer- or internally-facing—better, faster, more user-friendly, etc. As you progress in your career, a higher level of responsibility can look like managing a team of engineers, or some developers choose to go into more cross-functional product roles.

Data scientists, on the other hand, are typically more closely involved with the business side of things, drawing conclusions from data and producing business intelligence that can be used to inform decision-making. While software engineers are generally more focused on the technology, data scientists deal with statistics—and those statistics often come from user data collected from the product that's been built by the software team. Given their proximity to important business metrics, data scientists can expect to interface more with senior stakeholders on non-technical teams.

When comparing these two roles, consider not only the skill set needed for each, but where you see yourself in the business and which types of

stakeholders you'd rather work with. If building products and interacting with other technical people gets you going, software may be a better bet, while those who thrive on drawing insights out of complex datasets and communicating their significance to less technical colleagues may be better suited to data science.

Machine learning changes the game

As machine learning becomes an integral part of many new products, there is increasingly more overlap between software engineering and data science, blurring the lines while also making it easier for technical people to choose one between the two.

Whether or not you become a full-time data scientist, it's a good idea for any software engineer interested in products that involve machine learning—such as those that use image recognition, bots, or natural language processing—to familiarize themselves with at least the basics.

At the end of the day, you should choose a career path based on your interests and strengths—and in this case, it's much easier to do that, as salaries between data science and software engineering are similar (at least on average). Before committing yourself to one or the other, experiment with different types of projects and interact with different parts of the business to see where your personality and skills best fit in—because that's where you'll grow the most in the long-term.