What's the Best Data Science Certification? It's Not What You Might Think

"What certification should I get?" That's a question I see over and over again in the data science sections of Quora.

Data science learners from New Delhi to Des Moines are looking for ways to prove to employers that they've learned the right skills and they're ready for data analyst or data scientist jobs.

A certification can seem like a great way to do that.

The unfortunate reality, however, is that a data science certification proves nothing.

There are plenty of educators that will tell you differently (often as part of a sales pitch for an expensive certification program). But the reality is that employers don't care about certifications.

In my research for Dataquest's data science career guide, I spoke to dozens of hiring managers, recruiters, and data scientists about what makes a job candidate stand out.

You know how many of them mentioned wanting to see a certification or certificate? Not a single one.

That doesn't mean data science certificates are worthless! But if you were looking at certificate programs and wondering which brand's certificate would help you get a job, it does mean you need to reassess how you're choosing a program.

Why data science certificates don't matter?

The reason a data science certificate won't help you get a job is that there are too many certificate programs, and the standards for getting a certificate are generally not rigorous.

For example, many online data science programs and MOOCs are essentially a series of video lectures linked with multiple-choice and fill-in-the-blank coding questions.

> *It is entirely possible to get a "data science certificate" without writing a single line of code in many of them.*

And that's just one of a host of problems an employer faces when trying to assess whether a certificate on a candidate's resume actually means something. Here are some others:

Many certification programs have no form of identity verification (and even if they did, there's really no way to confirm who's actually behind the keyboard).

Many certification programs teach the "sexy" data science skills like machine learning, and barely cover less exciting (but hugely important) topics like SQL, so a "graduate" might not have the skills they need to actually work in the field.

University certification programs are often administered by third-party companies that are simply renting the university's "brand" and some educational resources, and they're not assessed (or accredited) like the

university's degree programs would be.

Moreover, there are tons of certificates out there to choose from, and employers aren't going to take the time to research each program to try to figure out if it's legitimate or not.

"Let me be honest," [Willow Data Strategy](#) president and chief consultant told me, "Before I meet somebody, the time that I spend [on each resume] is less than 30 seconds."

Most other employers and recruiters I spoke to said they spent about the same amount of time (10-30 seconds) scanning a resume. If they have to Google a certification to try to figure out if you actually have the skills they need, they're simply going to toss aside your resume and move on to the next one.

What you need instead

So if a certification doesn't prove you have the skills you need — or doesn't prove it quickly enough to get you past a resume screening — what does?

There are two primary ways you can prove you have the skills you need for a data science job:

Previous work experience in the field

Data science projects

Prior work experience is ideal, but if you're just starting out, you probably don't have it, so you'll have to rely on data science projects.

List projects on your resume (and link to your Github) that demonstrate the skills in the job listing. If an employer glancing at your resume sees that you've done work that's similar to what you'd be doing in their job, they're more likely to click through to your Github and start taking a deeper look at your candidacy.

Of course, you won't be able to build compelling data science projects for your Github (and resume) unless you actually have the skills you need! And that's where data science certification programs come back into play.

How to pick a data science certification program

While the certificate from a data science certification program is highly unlikely to get you a job, the actual skills that you learn as part of the program definitely can!

Certification programs can be a valuable investment of your time and money, so long as you keep in mind that what you're getting out of them is the skills you learn, and pick your program accordingly.

There are lots of options out there for anyone who wants to learn data science. I work for one of them, so to avoid bias, I won't recommend any particular program. But I do recommend that when you assess any data science learning program, you

consider the following factors:

Teaching style: There are many ways to teach data science, and your options will vary. You could sign up for in-person lessons, for example, at a bootcamp in your area. You could work through a lecture-based online MOOC. Or you can try one of the data-science-specific learning platforms that have coding built into the learning experience.

What you choose should be based on your own personal preferences and learning style.

- Do you need an in-person learning environment?
- Do you learn well from video lectures?
- Do you do best when you're forced to immediately apply what you've learned by writing code?

If possible, try out a few different types of learning platforms — many of the online ones have free trials or free courses — and see what works best for you.

Generally speaking, learning science suggests that learning hands-on is best. In the context of learning data science, that means writing code and working with real data sets, so you may want to prioritize programs that emphasize application and writing real code).

Skills covered: Does the program you're looking at teach the skills you need for the job you want? The answer to this question will vary tremendously based on your background and the programs you're looking at, but consider it carefully.

If you're starting from scratch, be particularly careful to find a program that covers statistics and the less glamorous skills like SQL and the command line in addition

to Python or R and machine learning.

Machine learning, in particular, is so hot at the moment that plenty of programs — including some pretty expensive bootcamps — emphasize it heavily, to the detriment of more fundamental skills like stats and SQL.

Of course, if you already have those skills, this isn't a problem! So you need to take the time to figure out what skills are required for your target jobs, take stock of your current skills, and then find a program that's going to help you most effectively fill in the gaps, wherever they are.

Budget: This is a highly personal question, but generally speaking, I would separate your data science learning options into five budget levels:

> University degree ($$$$) — Unlike a certification program, an actual degree in data science will stand out on a resume. But of course, getting a degree costs tens or hundreds of thousands of dollars, and generally requires 2-4 years of full-time study, which makes this a difficult option for most people.

> Bootcamps and university certificates ($$$) — These tend to be intensive full-time programs aimed at getting you up to speed in a few months, and generally cost between $10,000 and $20,000. They typically require at least some of your study time to be spent in residency on the program's campus.

> "Microdegrees" and online prestige programs ($$) — These online-only programs include training and often some kind of mentorship or career counselling on a one-to-one level, and tend to cost between $1,000 and

$10,000.

Self-learning platform ($) — Platforms like Dataquest, Codecademy, etc. that allow you to learn and write code online in course sequences designed to teach you the skills you need. They typically have free courses, but accessing all of their content requires a subscription fee. Subscribing for a year generally costs less than $500.

Totally self-taught — There are lots of free data science learning resources out there, so it is possible to learn all the skills you need for free! Of course, constructing your own curriculum can be difficult and time-consuming, and you're likely to encounter more challenges learning with this approach than any other, but the price is right!

Which of these options is right for you is a question for you, your family, and your bank account!

Schedule: It's also worth considering when you can study, and here again, your options vary tremendously:

Bootcamps and intensive programs typically require a full-time commitment.

Online "prestige" programs often have classes at particular hours you'll need to be available for.

Learning platforms are more self-serve and will allow you to squeeze learning in whenever you want.

Consider both what you can do and what you likely will do. If you're driven to reach your goals, for example, the flexibility of self-serve learning platforms can be a boon that allows someone with almost any work and family schedule to keep learning.

However, if you struggle with self-control and procrastination, signing up for a self-serve program might not be a great idea since there won't be hard deadlines you have to meet unless you set them for yourself.

The last word

At the end of the day, there are lots of great options out there for anyone who wants to learn data science through a certificate program. Just remember that the program you choose should be based on the skills you need and your personal learning style, budget, and schedule, not on what certificate brand you think will impress employers.

What impresses employers are actual skills. Pick a program that gets you working with real data, writing real code, and practicing the skills you need and you'll be well on your way to data science success!

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