

How to Get a Data Science Internship

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Looking for tips and tricks about the new data science internship you want to apply for? You have come to the right place!

Nowadays reports and publications consistently name 'data scientist' as one of the preferable jobs. While there are many articles about the set of skill you need to get the data scientist position, we wanted to focus on the **students** who crave working in this prosperous field.



The benefits of a data science internship are countless, beginning with the opportunity to work with professionals in the field, up to building your own portfolio. These internships offer fantastic mentorship and networking opportunities. You can learn from professional data scientists and demonstrate you are already one step ahead of your peers. Reading this article means that you are already aware of all that, so let's focus on *how to get* the desired data science internship.

How does a data science internship look like?

Data science internships are a unique opportunity for people who want to gain hands-on experience working with data at a fast-growing company. In fact, many recent graduates often have difficulty when they enter their first official job as a data scientist. Suddenly they realize that the data they will be working with is much messier and more complex than what they've experienced while studying.

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```
for input_batch, target_batch in train_data_loader.iter_instances():
    train_accuracy = sess.run([mean_loss, accuracy],
                               feed_dict={inputs: input_batch, targets: target_batch})

for input_batch, target_batch in train_data_loader.iter_instances():
    ... batch_loss = sess.run([optimizer, mean_loss],
                              feed_dict={inputs: input_batch, targets: target_batch})

# Record the batch loss into the current epoch's loss
curr_epoch_loss += batch_loss

# Find the mean curr_epoch_loss
# batch_count is a variable, defined as the number of batches in the training set
curr_epoch_loss /= batch_count

# Set validation accuracy to zero for the epoch to zero
validation_accuracy = 0

# Some logic of the code will be a single batch, input_batch, target_batch, validation_loss, validation_accuracy, and accuracy]
```

There is a simple explanation for why this happens.

As a student, many of the data sets you encounter are carefully preprocessed by the course instructor, so they are much “cleaner” compared to actual “real world” data sets. And this is one of the massive benefits of taking a data science internship, working with the actual real-life messy data. People, who have just entered the field, have very high expectations about the job, but the truth is that it is highly unlikely that you will be tasked with creating a **machine learning** algorithm right away. Why? Because *90% of machine learning is preprocessing and 10% is modeling*.

To sum up – expect messy, raw data and all that comes with this beautiful chaos. What we are referring to, of course, is the hands-on-experience and unparalleled exposure to skilled data scientists that will help you along the way!



What are the main activities undertaken during a data science internship?

We said that a data science internship will introduce you to real-life data. As a data science intern, you'll be on a team of professionals who are solving business problems for companies (including the one you're working at). We mentioned machine learning, but a more probable workload scenario would involve:

- conducting analyses
- producing reports
- building creative data visualizations
- Molding the data into a narrative or the better-known – telling a data-driven story

All of these might sound overwhelming for the novice data scientist, but you won't be in it on your own. You will work closely with engineers, product designers, and product managers. You will be asked to devise metrics, design randomized controlled experiments, and tackle hard open-ended problems.

While on this topic, it is a good idea to commit yourself to learn and mastering one, two or more programming languages, to have some **SQL skills**, and to know how to use some big data tools. Just give it a try and you will find that these concepts are truly not that complex as it sounds.

In fact, the more you learn during your internship, the more your manager will notice you and after all, isn't the end goal of an internship to get hired by the company you have worked for (or to have leverage when negotiating with an even bigger one)?



Get ready and let's see what do you need to do to get the internship?

Having said all that, it won't come as a surprise if we tell you that the key to success in data science is to start **early**. These tips are all over the internet, but let's look *the basics* you want to have covered:

1. **Experience?** You don't have to worry about it. That's the reason you are doing an internship – to gain experience. Interns are a great way to bring new and innovative ideas onto a team because interns come with a fresh set of eyes.

"Companies can use this perspective to their advantage by working closely with interns to develop and test new hypotheses", says Eric Frenkiel, co-founder and CEO of database start-up, MemSQL.

2. **Resume.** The sooner you start with building your data science resume the better. You need to make sure it is up-to-date and includes previous projects. You won't believe how many people underestimate the power of the CV!
3. **Cover letter.** You might want to consider making your cover letter fully customized. It will make you stand out from the other applicants. A generic cover letter is sure to make an impression that this is just one more application out of a huge pile. No employer likes to think they are just one of a long list of possibilities, and it makes the candidate look indiscriminate.
4. **Interview etiquette.** In addition, being aware of relevant interview etiquette is a great benefit. **Good manners make difference.**
5. **Soft skills.** Finally, some companies look for soft skills when hiring data science interns. Feel free to practice possible **interview questions** with your friends. This will certainly make you feel more confident and well-prepared.

Still, we are not here to tell you the things you can easily find online. We have prepared for you a cheat sheet with success strategies for finding the data science internship you truly want.



1. **Best foot forward... start participating in career events and job fairs**

The benefit of visiting these events is getting in touch with a lot of companies. It is a time-efficient process and you have the chance to make a good impression by showing off strong motivation.

2. **Reading glasses on... and dive into your University Job Board**

Look at it often, because sometimes firms announce certain job openings exclusively through the University Job Board. Many students don't pay attention to this source of opportunity, so doing so immediately increases your chances.

3. **Warm up your typing fingers... and contact start-up companies**

Be proactive and contact interesting start-up firms. Working within a start-up team would be great for your personal development. Offer your help and gain valuable experience in a dynamic environment.

Finally, building your professional network – truly the heart of our journey. Here are some things you can do to widen your professional network.

Build your data science portfolio.

Your data science portfolio will be the public evidence of your data science skills. The importance of the portfolio is three-fold. A data science portfolio can help get you employment. It shows your strengths. And finally, you can learn from it while building it – that's super important.



How to approach building a portfolio for your data science internship?

Good, so here we have the question of how to build your data science intern portfolio: Kaggle and GitHub are some of the best platforms you can use. It is very likely that Kaggle will be an important part of your portfolio creation journey. It has a large, active community of data scientists and a great platform for sharing your work. Furthermore, **Kaggle competitions** are a great way to gain hands-on experience in real-life datasets. Also, you will learn and/or practice your data cleaning skills. This gives you a chance to practice analyzing data and a way to come up with a model.

On the other hand, **GitHub** is a platform where you can interact with data scientists and machine learning engineers. Having an active GitHub account is a powerful signal that you really want to enter the field and can help you build some credibility. In fact, at some companies, hiring managers look at the applicant's GitHub to get a better idea about what they have built and how they've built it. It's just part of the selection process.

Do we have other suggestions? Yes.

Another great idea is to pick up side projects. With platforms such as **Toptal** and **Upwork**, you can sign up as a freelancer and work with a variety of companies and start-ups to gain experience. It may be difficult to land a freelance project, but if you do, you'll be compelled to do your best and learn a lot along the way.

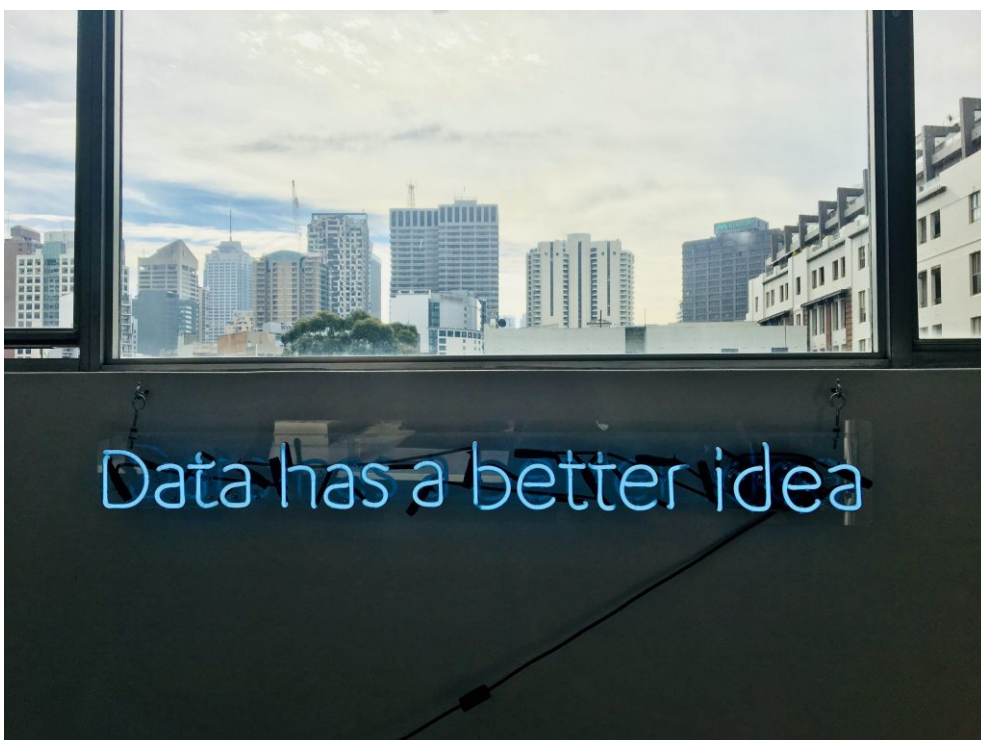
Some other useful places where you can find data science resources are Hunch, **Data Mining Blog**, **SmartDataCollective**, and **KDNuggets**. Why do we think these are useful names to have to bounce around in your brain? We'll tell you! Consider the following situation: your future employer asks you about the last data science article you read. You don't really spend that much time browsing the internet for data science

news. What you do, however, is open your email once or twice a week and read the newsletters from these websites. The titles stick, and so do the names of these well-recognized platforms. This already creates a fantastic first impression. And of course, the more pieces of writings you read, the more up-to-date you will be, and the more bonus points you will score with your future employer.



How about online courses?

That said, only reading articles isn't always enough. To be honest, employers prefer students to come from mathematics, **statistics**, or **programming** background, because they don't really know how otherwise to test the data science capabilities of an applicant. The programming languages needed usually include **Python** and R, with the former leading the way. **One of the best ways to tackle this issue is to take online courses**. This method of learning will save you time and you don't have to worry about your budget. These courses teach you in detail all the necessary skills to start your desired job.



Personal branding for the data science internship

At the beginning of the article, we mentioned that you may need to build a personal brand. Think of “*personal branding*” your online appearance and what you want your future employer to see. What we suggest is to make yourself a professional **LinkedIn** profile. Unlike the resume, we spoke earlier, a LinkedIn profile allows you to describe all your projects and work experience in more depth because you can emphasize the previous projects or companies, you have worked on. An important part of LinkedIn is the search tool because employers search for people on LinkedIn quite often and your goal as a future data science intern is to show up in the search. You might want to consider having relevant keywords in your profile. LinkedIn allows you to see which companies have searched for you and who has viewed your profile. In addition, the site helps you to gain insights on industry trends or even how you compare with other aspiring data scientists. LinkedIn can and should be used as a strategic tool to cultivate your network and build your brand.

We know that this is a lot of information to process but these days, there is more than one way to show off your skills and get the data science internship you really desire.

One last piece of advice from us would be to never stop learning!

This is how you grow as a person and as a professional. Don't forget to have fun along the way and keep checking our site for **more information** and new data science courses!