

# “The Title of Dr. Holds Significant Weight When You Enter the World of Industry”



Damien Neadle



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**Abstract** In our interview with Damien Neadle, he shares his journey from primate cognition research to a data scientist role in a grocery chain. Initially planning an academic teaching career, Damien became disillusioned with stagnant pay and progress. He transitioned his skills to data science through online courses and personal projects. Damien values problem-solving and the ability to switch off after work. He continues applying his statistical abilities and communication skills explaining technical details. Damien notes less passion-driven work but flexibility to guide the direction. He encourages documenting all PhD accomplishments and exploring options fully before deciding. Damien advises determining one’s priorities like travel and work-life balance in career decisions.

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## **Chris: Can you introduce yourself and tell me a bit about your current position?**

Damien: My name is Damien. I'm currently a data scientist in a grocery chain. My role within the business is to provide advance statistical support and analysis, primarily focussing on machine learning-based problems. I spend a lot of my time forecasting and trying to understand the behaviour of shoppers in a predictable manner.

## **What was the focus of your PhD?**

I completed my PhD at the University of Birmingham's School of Psychology between September 2016 and August 2019. My PhD research aimed to understand more about the mechanisms that underpin non-human culture and how these might differ from human culture. I used voluntary experimental methodologies with non-human apes (chimpanzees, bonobos, gorillas and orangutans). These experiments were primarily focusing on testing and documenting the responses of these individuals to novel experimental stimuli, which required novel tool use techniques to solve.

## **As you were finishing your PhD, what were you thinking about your career plans?**

I was certain of what I thought my career was going to look like, following the 'traditional' path in academia of post-doc, permanent lectureship, senior-lecturer, reader, professor. I had no intention of moving outside academia and therefore had begun to adapt my skills as such.

Towards the end of my PhD, I found that teaching was a major passion of mine; therefore I began to change my aspirations from a research-focused route to a more balanced one. I therefore knew that I would aim to gravitate towards post-92 universities.

It wasn't until after about 2 years working as a teaching-focused lecturer (with a permanent post at a post-92 university) that I began to consider exploring options outside of academia. This was following a 3 year pay freeze and little to no prospect of progression, despite my taking on senior roles within the department. I compared my skill set with that in industry and discovered that I could command approximately £20 k more per year in industry. Thus I began to transition my skills towards data science.

## **Can you tell us more about the challenges you saw in staying in academia?**

Academia is a very self-driven field that has many advantages and opportunities for the right kind of person. For me, I enjoy helping people, but I often don't know how to stop when it starts to impinge on me and my own life. I was working at least 50 hour weeks in order to provide my students with the support they wanted (note the use of the word wanted, not needed). There is and was significant pressure on academic staff in post-92 institutions to provide students with an experience that satisfies, regardless of what this means for their education. I often found myself at odds with senior staff in the university which led to some difficult times and difficult discussions. Equally, the sector is undergoing some radical shifts and pushes from trade unions in response to the consumerisation of higher education. I found myself drawn to supporting colleagues going through these struggles, and again, this led to me sacrificing my personal life for work, in this case unpaid.

I was fortunate. I chose to leave academia before the cost-of-living crisis became quite surreal. Therefore I benefited from the additional salary that industry had to offer. In reality, my family would not have been able to continue at a current standard of living with me on the salary I was on. It would've required my wife to increase her days at work, therefore increasing the number of days my daughter is in childcare. This would not have been the end of the world, and is commonplace for many families; however, we wanted to avoid this as it was simply not something we were willing to do. The fact that lecturers and academic staff generally are amongst some of the most qualified and educated individuals in society, yet are regularly paid less than your average supermarket manager is the reason for some of the exodus that we are seeing from younger academic colleagues like myself.

## **How did you go about transitioning your skills?**

I already had a good foundation from my own education of statistics and through my masters I had picked up R, my first coding language. During my PhD, I did a basic course in Python for social scientists. So, it was more a case of applying them to a business context and picking up machine learning theory.

I began by using DataCamp to get me used to using Python as a main tool and from there I used Kaggle to download sample data and solve problems with the kind of skills I'd be expected to show as a data scientist. Of course, like any developer, I used the website Stack Exchange regularly and Google was my best friend (and still is).

## **How did you go about finding a data science position?**

I began my search on LinkedIn, like many people these days. I soon began using other search engines such as Indeed; however, I found my current role by LinkedIn and all interviews I achieved were also via LinkedIn. I simply used the job search function and set my parameters and checked my emails for the LinkedIn job alerts daily. I was quite selective in the jobs. I applied for, feeling passionate that I would only work for a company whose morals are aligned with my own. I was keen to work for a company that had clear, positive environmental and social impacts on the world. My passion for equality and diversity was also a key factor. I wanted to work for a company that was dedicated to this.

I had several interviews and was offered other jobs. However, the position of my current employer fit almost all my criteria, also with a very clear progression plan.

## **Can you tell us a bit about what day-to-day life is like in your current position?**

Of course. So I begin my day with a 'stand up meeting', where the entire functional businesses intelligence team meets to let others know what we are working on that day and identify any blockers, etc. I then check my email for any jobs that might have failed overnight – I.e. error checking and debugging. This team consists of myself, a team of data engineers and a data analyst.

The bulk of my day is taken up with coding time and planning of future projects, following meetings with various stakeholders in the business. I work in a wider team of financial analysts and project managers, where we work together to ensure that large business decisions and projects are likely to make the business money and provide benefit to our customers.

## **What do you like most about your work?**

I love the problem-solving element. I really enjoy being provided with a business question and then being left to identify a solution and create an end-to-end process.

## **And what do you like least about your work?**

I find that the documentation element is challenging, but clearly recognise the importance of this step. Doesn't make it any easier!

In this context documentation is laying out exactly what a project will, and will not do; we call this scoping, equally, ensuring that all stakeholders are informed where required and made responsible for relevant parts of the project. Another important aspect of documentation is commenting within the code so that someone unfamiliar might still be able to understand exactly what the code is doing. We also make it a policy to ensure that the data catalogue is completed for each project. This involves explaining the meaning of each and every field and also laying out naming conventions, etc.

## **How do you think having a PhD has helped you succeed in your current position?**

Yes, without a doubt, I think one thing that is often overlooked in academia is how impressive completing a PhD can be: this is not to blow my own trumpet. The title of Dr. holds significant weight when you enter the world of industry because not many people have it. Contrast this with academia where, at least in the psychology department, the vast majority of staff will have a PhD.

Indeed, it also helped me in evidencing a lot of claims that I've made because I was able to point to instances where I had completed analyses of all projects in print via my publications or my thesis.

## **If someone currently finishing their PhD was considering a position similar to yours, how might they decide if it would be a good fit**

If it is a choice between entering traditional academia and data science. Then I would say determine whether you are willing to travel for work, and by that I mean international travel. Whether you are willing to relocate regularly as temporary contracts come and go. If the answer to these two questions are no, then I would

seriously consider the potential limitations that you may have on an academic career. That is not to say you could not be incredibly successful, but you might find it a little harder.

Turn specifically to industry and data science do you have to ask are you willing to continually develop your skills in response to new technologies? If the answer is 'no', then data science simply is not for you. You're also going to have to spend a lot of your time explaining technicalities to people who are simply uninterested in the technicalities or do not have the capacity to understand. I'll caveat that by saying it's not that they're unable to understand them, but they do not have the time to learn the skills. This is what you are employed for. A lot of time is spent storytelling and presenting your solutions and models to business stakeholders. If this does not excite you, then data science is not for you.

This paints the career in a somewhat negative light, so you must ask yourself, do you want to be able to switch off from work at the end of the day with little to no guilt? If the answer to this is 'yes', data science and industry in general could well be for you. When I was in academia, I was often working on my days off. One memory that sticks in my mind is dealing with a student crisis whilst at a family funeral. This is simply not expected in my current role. As academia develops back towards a face-to-face environment, one also has to ask themselves whether they wish to work in-person or from home. Tech jobs generally have more capacity to work from home than any other; therefore, someone entering data science could realistically expect to work from home, at least 50% of the time. This is unlikely to be the case for academics for much longer (after the COVID pandemic). However, I will say that academia presents as one of the most flexible jobs available. The ability to manage your own workload with more supervision than management can be advantageous for some. In the corporate world, you are beholden to the core hours generally.

### **If someone was interested in pursuing a similar career path, what would you suggest they do to better prepare themselves?**

I believe that someone wanting to enter data science should complete as many projects as they can. Within the data science community, a project is simply a series of analyses designed to answer a given question. Those questions can be self-imposed or imposed by an organisation. Kaggle provides access to a myriad of free and open data sets. They also organise 'competitions' where a series of questions, and data scientists and analysts compete to answer them in the most effective and fastest way possible. One should not expect to win these competitions with any degree of ease. However, the experience is invaluable. Even engaging with some of the better-known data sets in the data science community for instance, the titanic dataset can be persuasive in a job interview. So I guess, my big tip if you'd like to call it that would be projects. If you believe you can do something or are going to say that you

can do something evidence it with a project, the more projects, the more evidence, the better your chance of success.

**A lot of people like academia because they feel it gives them an opportunity to work on a topic that they deeply care about. Do you think this is also true in your current position?**

Honestly, probably less so. However, I was forced to balance this with my work-life balance. Another factor was to get job stability. I chose to work in a teaching-focused institution. This meant that a lot of my research projects were deprioritised which resulted in me not having time or financial support to work on them. That said, I have a deep passion for storytelling with data; therefore, I do have this advantage in my current role.

**Another reason many like academia is that they feel it provides them with more freedom than they think they would get in other positions. How much freedom do you feel you have to work on what you think is interesting?**

Personally, my company is in the infancy of data and analytics and the potential it holds. This means that I’m often able to steer the department in a way that I find interesting. This is more generally the case in smaller start-up companies. However, I work for quite a large organisation and am very fortunate in the sense I could not say that this will be the case for all people.

**How do your experiences inside and outside of academia compare?**

I would say that the experiences are what you make of them. I left academia before I grew truly resentful of it. I look back on my time with generally positive and particularly fond memories of working with my many students. I have experienced some once-in-a-lifetime events. From seeing a new-born baby Bonobo, right through to the sheer elation, of watching one of my students graduate. Clearly, as I mentioned, there were downsides. For me, these outweighed the good times, particularly towards the end of my employment.

Since moving outside of academia, I have found that I have more time, more money and perhaps most importantly, more space to grow. If it means that I must lose some freedoms to do so, this is the price I am willing to pay.

### **What do you see as some of the relative benefits of either workplace?**

For academia, I will always say flexibility – both in terms of what you do, and when you do it. Equally, the rewarding aspect of seeing a student succeed.

For industry, the ability to switch off. This substantially greater pay and a competitive marketplace will mean I can always move around in order to ensure that I am getting the best pay possible.

### **Do you see the two settings differing in their commitment to equality, diversity, and inclusion (EDI) practices?**

I can comfortably say that I've been very fortunate in most places I have worked that there have been a group of people willing to make changes in the right direction. My current organisation being so large can be quite slow to move. However, the intentions of senior leadership are there, and the support for initiatives is always forthcoming. This means that there is always a financial backing to projects that I propose to improve the EDI practices in our department.

Given that universities often run on a shoestring; sometimes the financial resources are not available in quite the same way. That said, universities are filled with fantastically passionate staff who often make up for this lack of financial backing with their own blood, sweat and tears.

### **Based on your journey, what advice or suggestions do you want to pass on to someone who's currently finishing their PhD?**

If you've not done your viva yet, then try not to panic too much. The viva can and should be a relatively enjoyable experience. Remember you're going into this as an expert in your field you're going in as a peer not as that lowly undergraduate student, you thought you were.

If you're still writing, then remember you are tackling a monumental feat. Don't try to do it all at once; deal with it in small bite-size chunks little and often.

Most of all, regardless of where you are, remember to document all the things you've done during your PhD – all the small courses you've done, all the challenges you have overcome, and all the skills you gained. Regardless of whether you'd like to go into industry or academia, you will need this record to show that you can be and are forced to be reckoned with in employment.



**Is there anything else you’d like to tell someone reading this interview?**

My journey is not yours. Everyone will have different priorities and challenges along the way. My views here on my own and reflect how I feel now. In 10 years’ time, these may have changed. No decision in your career is irreversible; your qualification will always be with you and therefore your ability to come and go into and out of academia.

**Thank you for all the advice, Damien!**