2017 Data Scientist Internships at UCAS

'Few decisions affect the future as much as going to study at a university or college...'

UCAS is the UK's centralised higher education admissions service. We track choices and decisions across millions of applications for higher education – half of all young people pass through our systems. This generates big, deep, and rich operational data. Buried in this data are the key insights and understanding about going to university. UCAS is committed to finding these insights to deliver our mission of connecting people to higher education.

It can be hard for graduates to learn the full set of skills needed to be a leading data scientist, so for the last three years UCAS has been running a paid Data Scientist Internship programme to fast-track graduates into this profession. Graduates from previous cohorts have gone on to become permanent members of staff and many are now leading areas of work with line management responsibility for up to two data scientists. The programme is based in the UCAS Analysis and Research business unit, which leads in the application of data science techniques to one of the richest decision data sets in the world.

The Analysis and Research Team uses the powerful, industry standard SAS software system. It specialises in the core skills of analytical programming, which are needed by the best data scientists to give them the highest capability to create data structures and analysis.

If you are successful in your application, you will receive:

- full training by experts in analytical programming, including an intensive fast-track SAS programming course
- exposure to a variety of roles across the Analysis and Research Team, where you will be involved in solving real problems from day one and will gain the full range of skills to progress your career
- the support of being paired with one of our experienced data scientists, and regular meetings with the Director of Analysis and Research and other senior members of the team
- the opportunity to present your best work to UCAS' Executive Team, and receive support and advice on the next step in your data science career
- a competitive salary to reward your growing skills and contribution to our work

To be considered, you should be able to show that you have:

- exceptional levels of numerate, analytical and logical thinking
- drive to find things out that really matter from data
- potential to learn and apply analytical programming at the highest level
- personal values and attributes for being a leading data scientist

Data scientists come from a variety of backgrounds, but you are most likely to have very strong quantitative skills, reflected in high grades in mathematics or a physical science at A level (or equivalent). You might also have some computer programming experience. Being able to pair your ideas with the ability to create results through structured code is key to these roles.

If you think you have the potential and commitment to succeed on one of our Data Scientist Internships, then let us know by emailing careers@ucas.ac.uk with:

- a brief CV of your academic and other achievements
- a note (300-600 words) telling us about something you have done which shows your potential to become a data scientist, and why you want to work with us and our data

Applications for the 2017 Data Scientist Internship programme should be with us by 17:00 on 19 June 2017.

We will be testing and interviewing candidates on **Tuesday 11 July** with successful candidates starting in early September 2017.

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Sher Tang, BSc Discrete Mathematics,
Lead Data Scientist (graduated internship in 2015)

'Since starting at UCAS, I have had research I'd done presented to stakeholders, and produced countless new operational reports for providers but my highlight has been creating new ways for the internal business to keep an eye on what's happening in the application cycle. I have always been under the leadership of experienced analysts but also allowed the freedom to work independently on new projects. The managers have also supported me wonderfully in developing my professional skills. Now, I lead the Data Products team, creating new analytical reports to sell to our stakeholders to help them understand the HE sector and themselves. The amount of data that UCAS has is huge and so many people are a part of it. I am constantly finding new ways to draw insight from that data to aid the education sector and help connect more people to Higher Education.'

Dan Brookes, MEng Engineering,
Lead Data Scientist (graduated internship in 2016)

'Since joining UCAS, I've worked on a variety of projects such as the End of Cycle report, interactive data visualisation, and the Digital ID service. I've been given opportunities to develop both my technical and managerial skills, with a series of training programmes to support my progression. UCAS is a fantastic employer with a very fun and friendly staff culture, with recent self-organised events such as the walking football tournament and UCAS sports day great examples of this. I would recommend the internship programme to anyone with a mathematical background and an interest in data, as it is a great way to learn on the job and progress your early career, with exposure to senior staff and the opportunity to learn first-hand from previous graduates of the intern programme.'

Tom Hawker, Master of Earth Sciences,
Data Scientist, (graduated internship in 2015)

'I started my internship with no coding experience at all and in less than 3 years, I progressed to being a Certified Advanced SAS user. During that time I have been in involved in the development/re-development of important and innovative services such as the Direct Contact Service and the Tracking Data Service, STROBE. A big advantage (for me) about working for UCAS, is it a well-known and respected brand but the organisation is not so huge that you will be lost in the shuffle.'

Amy Denby, BSc Conservation Biology and Ecology,
Data Scientist, (graduated internship in 2016)

'I have been given opportunities to practice different roles within Analysis and Research and been equipped with the training and knowledge to make me capable of doing so. Now stationed in products, I have the scope to suggest new ideas and make them come to life, incorporating feedback from workshops, presentations and meetings along the way. I would advise anyone considering the internship to not dwell too much on their current level of programming skills or degree title as long as they are willing to put the effort in to cultivate new skills.'

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Andy Sugden, MSc Social Statistics,
Data Scientist Intern, 2016-2017

'The environment in the department is perfectly set up for personal development in data science roles, working in a mostly young team who are all eager to learn and share programming tips together. One real plus of working for UCAS is that you can always see the value in your work – for example, I have been working on a customer segmentation system to better target our email systems, which will directly improve the experience of applying to university.'

Heather McNeill, BA Natural Sciences,
Data Scientist Intern, 2016-2017

'Since joining UCAS I have been lucky enough to be part of a new team working on getting better insight from surveys by combining results with the large amounts of data that UCAS already holds. Although I had little programming experience, the training provided combined with the friendly and supportive atmosphere at UCAS has allowed me to learn a lot very quickly and I have felt like I have been positively contributing to the team since day one. UCAS really cares about its employees and I would definitely recommend it and the internship programme as a great place and way to kick-start your data science career.'

James Wellsted, MPhys Physics,
Data Scientist Intern, 2016-2017

'Working as a Data Science intern at UCAS has given me the opportunity to learn new analytical skills and greatly improve my programming abilities in an extremely friendly and welcoming environment. Through the training we received, I was able to make valuable contributions right off the bat, with my pieces of code being vital in creating brand new processes on the way to developing our survey data services. There are many varied opportunities to get involved in at UCAS, from primary research and data analysis, to working with statistical models, to producing reports and other outputs that inform and benefit the sector, so you are sure to find something that interests you.'

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