Statistician, Sparx

London, UK

Here at Sparx, we’re working flat out to investigate scientifically what makes the best learning experience. By using real-time data to drive an evidence based approach to education, we’re developing an extraordinary new technology for the classroom that is redefining the limits of what young people can achieve and is helping us figure out what works (and what doesn’t) in the field of education.

Our platform for maths uses custom built content and a powerful, data-driven mobile framework to deliver a tailored set of exercises, games and incentives to the student. We’re looking for people with a deep passion for education and a belief in the power of technology to improve it.

Job Description

As a Statistician at Sparx, you’ll join a team undertaking ground-breaking research into how technology can be used to optimise learning that will determine the future of how the next generation learns. Since it was established Sparx has been analysing large amounts of data which provides us with a great opportunity to obtain some fascinating insights into the learning process.

What choice of questions would optimise a student’s learning process? Can we gain understanding on which aspects of a teaching method are most useful and which aspects cause confusion just from looking at a pupil’s answers? How do we compare the ability of a pupil who answers questions quickly, but with frequent incorrect answers, with a pupil who answers questions more slowly but more accurately? In order to gain insights into these sorts of questions, we require some sophisticated statistical models.

We carry out initial exploratory analysis of the data using basic statistical tools such as t-tests and linear models. However the large number of parameters, their complicated interactions and the frequent non-standard distributions of many of the variables within the data means that we have to adapt much of the existing statistical methodology to meet our specific needs.

As a statistical modeller at Sparx, you will have the freedom to pursue new angles of research. You will be encouraged to generate new ideas and to investigate any potential drawbacks that might occur to you during the process of model development. At Sparx it is understood that the strengths and weaknesses of different approaches to statistical problems is frequently not clear until some time has been invested into researching them, therefore, the role of a statistical researcher is less target and deadline based than in many roles.

In addition to working on long term projects, the job also involves smaller short-term tasks. These include:

- Providing engaging and intuitive graphical presentations of various facets of the data
- Extracting specific portions of the data along with relevant summary quantities that would be useful to other members of the Sparx team that aren’t as familiar with the data structure or the programming skills to manipulate it.

About You
You will have a logical, analytical mind and have a natural enthusiasm for numerical challenges and general problem solving. The data isn’t always as clean and regular as presumed by many existing statistical methods. You must therefore be willing to understand and address the messy compromises that real life data requires. While some of the problems will inevitably involve complicated, advanced statistical methodology, in many cases simpler, less mathematically elegant solutions are more appropriate for the practical needs of Sparx, so your mathematical ability must be combined with a healthy amount of realism and common sense.

In terms of specifics, the list below gives an overview of some of the skills and experiences we’re looking for:

- First class degree in Statistics or other related subject
- Postgraduate qualification in Statistics or a related subject plus active research experience or commercial experience
- Demonstrated experience in analysing large data sets using R, SAS, SPSS, MATLAB or SQL
- Comfortable programming in at least one language (C++, Java, Python etc.)

Our Team

We’re about living life, not putting it on hold. Our generous benefits include substantial holiday leave and company pension. We have a range of on-site facilities for all employees to use free of charge. We have a netball court, a five-a-side football pitch, a running track, a pool table, a 2012 Olympic table tennis table, as well as a gym with classes throughout the day. Our café serves delicious, local, and organic food. Did we mention it’s all free?

On top of this you’ll have great views from your office window of the foothills of Dartmoor and boats out at sea on the horizon – with the beach just 20 minutes away. Plus, we’re constantly organising events and activities to support our charities, and to socialise. Our work is serious but we’re all about having fun while we do it!

https://www.statsjobs.com/jobs/statistician-sparx/