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Dear Sir/Madam,

I am applying for the role of Data Analyst at Criteo, and I would like to explain why I am excited about this role and how I believe I have the statistical, technical and communication skills required to succeed at Criteo.

The job interests me as I would be able to apply the analytic and technical skills learnt during my PhD to create impact in a real world situation such as online advertising. I relish the challenges of using cutting-edge statistical and computational techniques on complex and large data-sets to be able to improve the effectiveness of advertising campaigns. Finally, I know from my experience of working for 18 months at the CERN campus in Geneva that the international environment of Criteo in the lively city of Stockholm would suit me well.

I have good analytic and statistical skills that would make me well qualified for this role. My current research involves searching for signs of new physics in the large data sets from the LHC experiment, leading to 3 public results in the last 18 months. This research entails searching for 100s of discrepant points in a data-set of 10 million events; this has required the use of machine-learning algorithms, regression techniques, and Bayesian hypothesis testing. In addition, I have experience and interest in statistical analysis beyond my current research; my undergraduate physics degree required complex mathematical and statistical problem solving and I have completed statistical courses at UCL and at an international particle physics summer school in Beijing. I also attended a CERN academic tutorial series on Machine Learning, consisting of lectures from experts in the field from CERN and from Google Brain.

To perform this research I have developed a range of computing skills that are essential for this role. I have 3 years experience using computational tools to perform large-scale analyses using tools such as Python and C++ within a collaborative environment. Whilst working on these projects I have been required to learn new computational skills quickly; for example I began working on a new project where all of the existing framework used Python, of which I had zero experience. However, from studying the existing code and using online manuals I was soon able to use and adapt the existing code to perform the analysis. I believe that this ability to adapt to a new working environment gives me confidence that I would be able to fit in at Criteo. I am also keen to broaden my current skill set; to this end I have taught myself some basic usage of SQL and Python libraries such as Pandas, Seaborn and Scikit-learn.

An equally important facet of my research experience is communication skills. I am a member of the ATLAS experiment, an international collaboration of 3,000 scientists. It is necessary for us to effectively work together in small groups with regular communication within and between these groups. I work well in this environment; and as a result 6 months ago I was asked to be an analysis contact, a role which involves co-ordinating the work of a small team and representing our work and needs to those outside of the team.

Furthermore, I have been invited to give a number of presentations in a large range of situations; from discussing particle physics with school pupils to speaking at international scientific conferences in the UK, France and Russia. From this I have learnt that when presenting information it is essential to understand the audience that you are presenting to and to think about what the key messages your audience should take away, which allows for effective communication of your hard work.

Thank you for considering my application and I look forward to hearing from you.

Yours faithfully,

Laurie McClymont