

123 Tyers Street,
London,
SE11 5HS, UK

August 13, 2017

Dear Sir/Madam,

I am applying for the Data Analytic Internship at Deezer, 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 Deezer.

The job interests me as I would be able to apply the analytic and technical skills learnt during my PhD to create impact in the music industry. I relish the challenges of using cutting-edge statistical and computational techniques on complex and large data-sets to be able to improve the customer's experience and help Deezer grow. In addition, I know from my experience of working for 18 months at the CERN campus in Geneva that the international environment of Deezer in the diverse city of Paris would suit me well.

Another aspect of the job that excites me is the opportunity to work within the field of music, which is passion of mine. I have played saxophone and guitar for over a decade, performing many times with jazz and swing bands, including in national school competitions. I also enjoy listening to a wide range of music from contemporary music such as Glass Animals and Bon Iver to Jazz and Classical music. I believe that having a deep interest in the subject of the data being analysed is very important.

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 Deezer. 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.

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

Yours faithfully,

Laurie McClymont