

## **Faizan Khalid Mohsin**

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Dear Professor Lisa Strug,

I would like to apply for your practicum project *Phenome-wide association study of Cystic Fibrosis Modifier Genes*, as this interest me very much and I believe I will be a great fit for the project. I have taken the course Computational Statistics which had extensive computational techniques, have done a research project in prostate cancer where we used ICES data which was a huge dataset, have also used principal component analysis for one of the case study competitions at the SSC where we won the first prize, and finally, done an entire simulation study as a research project on comparing different imputation methods. Moreover, I am familiar with command line as I have scripted a lot of the statistical techniques using bash and R scripts. As you can see my skill are well suited for this project.

Further, I have a lot of experience doing statistical consulting through my company Cube Statistica. As a statistical consultant I have worked with real world data, performing the entire data analysis process from data cleaning to delivering the final report. This experience has given me the ability to learn new statistical techniques quickly and at a deep level in a short period of time. I have also learned how to perform in high pressure situations.

Throughout my past years of study, I have demonstrated an outstanding level of academic achievement and shown particular strength in statistical research, demonstrating extensive analytical, computational and quantitative skills. I have been consistently engaged in conducting long-term and short-term research projects, where I have been able to apply my critical thinking and learn quickly and independently new concepts, techniques and skills. I have also achieved excellent visualization and oral communication skills which can be seen as I won the best undergraduate research presentation award at the Statistical Society of Canada's annual student conference. As the lead researcher of several research projects, I have developed the ability to work independently and collaboratively.

I am a highly creative individual, always thinking out of the box to find the best and the most appropriate solution to problems. Through my various experiences, I have had the opportunity to apply advanced statistical techniques to solve real world problems. For example, in the case study competition on "What predicts sustainability of Canadian charities?" which we won, we used a novel clustering method to segment our data. We first used principle component analysis to reduce the extremely high dimensionality of our data and then used the principal components as the input to our k-means clustering to segment the successful Canadian charities into different groups, obtaining a very insightful segmentation of the charities.

These projects have helped improve my critical and creative thinking and given me a lot of experience in research. I am a proactive, innovative and highly motivated student. I would like to thank you for considering my application and I look forward to hearing from you.

Sincerely,

Faizan Khalid Mohsin