

## **Faizan Khalid Mohsin**

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Dear Professor Nicholas Mitsakakis,

I would like to apply for your practicum project *Methods for identifying and describing health state transitions*, as this interest me very much and I believe I will be a great fit for the project. I have taken the courses Stochastic Processes and Computational Statistics both of which had extensive work on Marko Models, have already done a research project in prostate cancer where we used ICES data, and finally, done an entire simulation study as a research project on comparing different imputation methods. As you can see my skill are very 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 am a hard worker with the desire to continue learning and improving. Through my many research presentations, 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, as well as through my many leadership experiences, I have developed the ability to work both independently and in a team.

I am a highly creative individual, always thinking out of the box to find the best and the most appropriate solution to problems. Through statistical consulting, research, industry workshops and forecasting competitions, I have had the opportunity to apply advanced statistical techniques I have learned and think out of the box 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