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Dear Member of Faculty,

I'm currently an undergraduate student at the University of Toronto, majoring in computer science and economics. I'm also an aspiring computer science researcher, with a particular interest in artificial intelligence, and I'd love to take part in your research over the coming semester.

Over the past summer, I worked at the ReStore lab, under the U of T's Faculty of Medicine, to provide statistical support. This gave me the opportunity to develop skills in statistical analysis by means of working with experimental data. This included performing logistic regression, ANOVA and t-tests using R, as well as verifying the assumptions of each model beforehand. I summarised my findings in reports through the use of summary statistics and visualisations, as well as presenting them orally during meetings. I've also performed data extractions, where I developed abilities to interpret and identify key findings in existing literature.

I've also been volunteering for professor Tianyi Wang in the Department of Economics since last May, which turned into a formal employment contract in October. Here, I've learned how to use modern text embeddings from OpenAI and Cohere to identify political bias in movies. I've gone through the processes of cleaning data, creating visualisations, optimising models and summarising my findings. While my experience at the ReStore lab consisted mostly of engaging in traditional statistics, this opportunity allowed me to gain experience in working with modern machine learning techniques.

This September, I accepted a research assistant position under Laurent Cavenaille at the U of T's Rotman School of Management. Here, I've been working on a project that analyses patent and product information to identify similarities, and possible cases of trademark infringement. This was an involved project that required scraping the web for product release dates, developing and implementing mathematical models to identify product similarity and extensive literature review. I learned how to use tools such as PyTorch, cuML and Slurm to distribute computation across multiple GPUs on a remote compute cluster.

I aspire to obtain a PhD in computer science, and eventually become a full time researcher. Through this opportunity, I will be able to gain the experience needed to strive towards that goal.

Thank you for your time and consideration,

Armaan Nanji