

Statement of Purpose

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As a third year student in Computer Engineering, I am deeply fascinated with the field of Machine Learning and Social Network Analysis. The way, computer scripts can be made to make sense of an underlying stream of millions of bits, truly captures my imagination. Discovering patterns of data using mathematical models and correlating such trends with interactive visualisations to predict the growth of such trends is an extremely stimulating research prospect.

I have previously undertaken research projects involving the application of statistical machine learning techniques for data analysis. The prospect of learning to use and implementation of artificial neural networks to solve challenging problems in Artificial Intelligence is an exciting idea.

By the end of the winter school, I aim to have learned both the theory and application of neural networks in the areas of data analysis. Armed with this skill, I would be in a much better position to continue my previous research work in the area of Social Network Analysis.

I run a student driven initiative, the AIT Big Data and Pervasive Systems Group, wherein I am teaching juniors from my college, web scraping, data mining and technologies like Hadoop and NoSQL. Attending this winter school, will help me to better mentor my juniors, by passing on these skills to them.

Carnegie Mellon, over the years has established itself as the leading research centre of Computer Science and in particular, the field of Machine Learning. As an undergraduate student, with the aim of pursuing Doctoral studies, and pursuing research as a career, the opportunity to work with the leading researchers from CMU and working on live research projects, would be a once in a lifetime, dream opportunity for me. During this two week period, I also aim to forge friendships with the finest students of the country, and learn from their experience.

I have consistently been the first position holder in my college, and have been a recipient of various scholarships for academic excellence from the Indian Army, Institution of Engineering and Technology and the Sir Ratan Tata Foundation. I am also a recipient of the prestigious, 'Indian Academy of Science's Summer Research Fellowship'

Being part of the IPTSE Winter School, will open the prospect for me to continue the pursuit of academics by enrolling in a leading graduate course, and pursuing my dream of doctoral studies thereafter.