

COVER LETTER

I am Akshay Uttamani, graduate student in the department of Computer Sciences at the University of Wisconsin-Madison.

My area of interest include Machine Learning, Data Mining, Information Retrieval and Big Data.

Presently, I am a teaching assistant for the course-Introduction to Operating Systems under Prof. Andrea Arpaci-Dusseau. Besides this, I am working with Prof. Chuck Dyer as an independent researcher on "Detection of events and other patterns in social media". In this project we try to use the social media image data-set to determine the events that are happening near a particular user's location. We plan to use Convolutional Neural Network to extract image features and then use them to train on different models.

As a part of Machine learning course, I am working on a problem "Autonomous Tagging for online Question & Answer forums". The main idea is to generate a system that tags users' questions to enhance user experience. We plan to use the scikit-learn machine learning suite and the Natural Language Processing Toolkit for training different models and then compare the results. Multiple concepts of machine learning such KNN, Neural networks, SVMs etc will be used along with the knowledge of programming in Python, MATLAB and JAVA.

As a part of Human Computer Interaction course, I am working on the problem of "Accessibility in web applications"- where we try to identify the problems that the web developers find in incorporating this feature and based on the information collected, we plan to build a tool(chrome extension) that will help developers make their web applications accessible. This project requires knowledge of web development process cycle and understanding human psychology. It also includes knowledge for building chrome extensions.

Prior to this, I have been fortunate to work under some great Professors and to be a part of 2 great Institutions. My Bachelor's degree(as well as my current Master's degree)involved a great deal of independent research, requiring initiative, self-motivation and a wide range of skills. Till the third year of my undergraduate degree I was working in Security and Systems using the concepts of C/C++. In my final year I had the opportunity to work with Prof. Bhiksha Raj (CMU) on a very interesting topic in Machine Learning, using tools like Caffe, Python, MATLAB and AI concepts like neural networks. This project gave me a good insight of machine learning in general and the ways to approach different research problems. Since then I have been working in Machine Learning and plan to do my thesis in the same.

I am a quick "learner" and always look for opportunities to learn new technologies. With the kind of experience that I already have in my past, along with the work that I am currently working on, I have developed the required skills to be an individual contributor to the team. I believe I would be able to take up the responsibility for this position and would be a good fit for it. Looking forward for a positive response.

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