

# JOURNAL OF TEJASWI GOTTIPATI

## **September 7 - September 14**

I was introduced to Latex last week. I was lucky enough to get a book from library on Latex. I found the fundamentals very easy. I practised Latex, by writing small articles. This helped me in writing my Autobiography very effectively. I also included some mathematical formulae, that I learned to write in the latex.

## **September 15 - September 21**

The project was introduced to us on last Thursday. I had little problem in understanding about the project initially. Adrian has explained us the process that we are supposed to do. I attribute the entire credit to Adrian for having developed the prototype. I browsed websites to gather information about Python software. I found that it was some what similar to C. Mean while the prototype was given an exact shape. Learning Python was entirely a new experience. Initalily I was scared about the software, but later on I began feeling comfortable with it.

## **September 22- September 28**

This week we exchanged the algorithms. I had some trivial doubts about their algorithm and got them cleared with them, yet I did not pass any comments. Our group made some comments list and we sent them all to the other team. They also gave us their set of comments. I appreciate their comments becuase they brought to our notice, some important key points.

## **September 29 - October 5**

My Routine is 8. I studied the project in detail and learned some of the basics in Python. I found python very interesting. I am in the process of practising the syntax of the python. My Routine is about the testing of the results. Given Np number of points over some range of "X" I am supposed to test the corretness of the out put. I

have to call Routine 7 and gather the error values for the  $N_p$  points and return the worst error.

## **October 6 - october 12**

I have written the code for my module but made some errors. I met Dr.Martin and discussed with him. I hence got them corrected. I did not do much work this week other than this. My routine was also included in the final code.

## **October 12- October 19**

I tried to execute the program but was not sucessfull initially. My friends in the team helped me in executing various routines. I was excited to see the outputs after executing the routines. I learnt how to run a Python program.

## **October 19 - October 26**

I have searched for the periodicals in the net. I was able to find the Monte Carlo Calculations of the Ground State of Three- and Four- Body Nuclei by M.H.Kalos. With extensive research I was also able to trace the location of the periodical "Principal component analysis of three mode data by means of alternating least squares algorithms" by P.M.Kropfenberg. It was in the Alden library but its due untill 12th of january 2007. There were no copies available for request. I will some how try to find an alternative. I am half done with the reading of the periodical, Monte Carlo Calculations of the Ground State of Three- and Four- Body Nuclei. I could not understand that better, as it involved complex equations. I am sure I will be done with this in a few more efforts.

## **October 27 - Novemebr 2**

I read the paper Monte Carlo Calculations of the Ground State of Three- and Four-Body Nuclei by M.H.Kalos. It involved complex equations. Eventhough I could not completely understand the deep concepts of mathematics that are involved in this paper, I could understand better the concept of application of Monte Carlo Methods to solve the Schrodinger's wave equation. I am left with some doubts whcih will be solved only with the thorough knowledge of the Green's Funtion. I prepared the slides to give power point presentation of Monte Carlo Calculations of the Ground State of Three- and Four- Body Nuclei by M.H.Kalos.

## **November 2- November 9**

I have presented my paper. I did all the math work on the black board on the day of my presentation. I haven't used my slides much. So I was told that it would have been a better presentation had I used the slides too. I appreciate the suggestion of my friends. They advised me to prepare some hand outs for the math work, which would make my presentation even more effective.