

Journal of Prashanth Thogaru for spring 2007

1 Week 1:

I prepared a rough draft for my mathematical autobiography. I learned \LaTeX basics in this week through the online tutorial. Then I started writing small articles using \LaTeX . I prepared my final mathematical autobiography and journal using \LaTeX .

2 Week 2:

In this week I practiced mathematics problems using \LaTeX . I followed the online \LaTeX tutorial to solve the problems. I have learned sectioning commands, special symbols, type styles, mathematical type setting. I tried and succeeded in using these commands.

3 Week 3:

In This week I followed the handout given by Dr.Martin which consists "Approximating a Wave Function as an Unconstrained sum of Slater Determinants". In this I was introduced to the Multi particle Schrodinger equation, Green's function, Slater determinants etc. Coming to \LaTeX I learned new concepts in \LaTeX and I feel comfortable with \LaTeX now.

4 Week 4:

This week I played with python IDE to get familiar with it. I started reading the book "Dive into Python". I learnt the basics of Python and finally wrote the code for calculating the sum of the first n numbers.

5 Week 5

In this week I followed the chapter 3 of Dive Into Python material and learned basic concepts of Native Data types like dictionaries, lists, strings, tuples etc.

I also learned operations on dictionaries, lists and strings. I am getting familiar with variable declaration, referencing variables and assigning values to the variables.

6 Week 6

In this week I worked on writing python code to calculate the determinant of a $n \times n$ matrix when the size of the matrix is given. I have written code but I am unable find out the solution for the matrix determinant problem, I have done different operations on lists in order to evaluate the matrix determinant. Now I feel comfortable with lists in python I will try to find out solution for the matrix determinant problem in the next coming week.

7 Week 7

In this week I searched for the 2 issues given by Dr.Martin and I found the first one “Accurate quantum chemical calculations: The use of Gaussian-type geminal functions in the treatment of electron correlation”. I found it in scholar.google.com. I tried for the second option given to me but I am unable to get it.

8 Week 8

During this Week I tried to understand the issue and prepared for the presentation on “Accurate quantum chemical calculations: The use of Gaussian-type geminal functions in the treatment of electron correlation”.

9 Week 9

On 23rd May(Wednesday)I have given a presentation on what I was understood from the above issue. I gave my presentation using “Power point” and I used the PDF document (issue) to explain equations. I switched from the “power point” to PDF document in presentation. Dr.Martin suggested me to focus on the introductory part of the presentation, use \LaTeX for the mathematical presentations and switching between two windows was not worked well. Other exploratory members also presented their issues.

10 Week 10

On 30th May(Wednesday) research group and the under graduate students presented on what they have done during the quarter. I learnt new things from their presentation and also learnt presentation skills. All presentations were good.