

First meeting (Group) – 29-12-17, EC1-01

Detailed Structure of the dissertation and key areas - Topic discussed – Research areas and topics to research on listed – Project proposal explained – Sample project proposals emailed – for a clearer idea of what was expected of us.

Second Meeting (Extended topic of research) – 11-01-18, Techno Centre

further explanation and breakdown, narrowing down the problem before breaking off for break.

Third meeting (Project proposal -Literature Review) – 06 -02-18, William Morris:

Questions related to the project proposal content. How to address that were still uncertain like dataset and algorithms.

Fourth meeting (Final Project Proposal Draft) 07-02-18, ASG-31:

Project proposal drafts and queries sent and feedback given via emails. Literature review in-text citations and client motivation area asked to be updated and pointers given. Structure redefined in form of questions that needed to be answered for example: Who is the target audience? how will the proposed system be beneficial to them etc.

Fifth meeting (Ethics, Data set) – 20-02-18, ECM-15:

Ethics application submission discussed and submitted. The initial public Kaggle based dataset of 30 households discussed and played around with. The option to use Davis's electricity dataset arose and ultimately chosen. The dataset was received via email. The ethics application was updated as a public open source data was not being used. A consent form between the owner and researcher written and ethics updated.

Sixth meeting (Dataset Methodology) – 07-03-18, ASG-31:

The collection of the dataset explained. The manual techniques and the equipment required for the collection of the electricity consumption data as well as the pings that recorded the availability of the person at home. Ethics consent form designed discussed and the relevant elements pondered over.

Seventh meeting (Clustering, k-Means Algorithm) – 22-03-18, Planet Earth:

The split in the dataset discussed. The need for the split to be randomly picked not containing consecutive instances in the training data (70%) and the remaining consecutive occurrences to formulate the testing set (30%). The k-Means algorithm and its nature discussed. The fact that the number of clusters (K) needs to be user provided.

Eighth meeting (Deviation, Qualitative and Quantitative, Stats, Algorithms) – 27-03-18, EC Building:

Explanation that the understanding of the data machine learning had led me to understand that clustering alone is a stand-alone method to plot data based on similarity and trends and an additional methodology needs to be implemented to classify an input testing data for prediction. A method such as nearest neighbour incorporated for prediction. The possibility of applying more than one algorithm and performing a statistical analysis to prove which works best in the given scenario. The possible ways to analyse the results, precision, accuracy, recall, f1 score etc discussed. The importance of having to meet with a statistician expert to agree upon an analysis methodology.

Ninth meeting (End of term Presentation) – 29-03-18, William Morris:

Attendees: David Croft (Supervisor), Matthew England (Second Marker), Self.

All the progress in numerical values. 20% of the writeup along with nearly 45% of the coding done. What was left to be done, what were the problems encountered. Dissertation writeup breakdown, Word limit breakdown, project explanation from the bottom up. Its application and methodologies discussed.

Feedback from the presentation recorded on phone using voice recorder with consent of all present parties (*More on the feedback from the presentation in the reflection section*)

Eleventh meeting (Draft check, run through) – 17-04-18, EC Building:

Limited feedback given at this stage as per university regulations. Suggestions and pointers as to what section might need another look etc. Structure, reflection and analysis section queries cleared out. Code unrequired but maintained in GitHub. Something of immense importance to be added to report itself otherwise snippets of relevant information to be added to appendix and referred to in the section of choice.

Twelfth meeting (Draft check, run through) – 25-04-18, EC Building:

Analysis report, table of F-measure and statistical calculations. Feedback to keep it to the point and explain the findings and statistical calculations. Weekly log report, project management, analysis and project proposal, appendix, declaration of originality structure and placement discussed.

Signed:



David Croft
(Supervisor)

Dated:

29-04-18