Project Plan

Date	Objectives	Deliverables
Week 1 (24/06/2024)	Deep analysis of the UJIIndoorLoc dataset structure.	- Report on dataset structure and findings.
Week 2 (1/07/2024)	Produce a proof of concept on classification and regression algorithms made from scratch. Analysis of the UJIIndoorLoc dataset may carry over to this week.	- Classification and Regression algorithms made from scratch (e.g Nearest Neighbours, Linear Regression). - Finish analysis report on the UJIIndoorLoc dataset.
Week 3 (8/07/2024)	Apply algorithms to a small synthetic dataset and compare the empirical results. Begin implementing the algorithms on the competition dataset (UJIIndoorLoc).	- Report on the empirical results of the synthetic dataset. - Produce experiments on competition dataset.
Week 4 (15/07/2024)	Work on the competition dataset may carry over into the following week. Expect to produce the necessary results by this week. Once this is complete, I can analyse and compare the performance of each algorithm on the dataset.	- Finish work on the competition dataset and analyse findings on the performance of each algorithm.
Week 5 (22/07/2024)	If the previous objectives have been completed, I can implement the extension tasks. Begin work on a literature review of the Machine Learning algorithms in Wi-Fi Fingerprinting.	- Complete extension work depending on time constraints (produce location estimates with some confidence measure and adapt the algorithms to an online setting). - Begin a deep literature review on Wi-Fi Fingerprinting Machine Learning algorithms.
Week 6 (29/07/2024)	Complete the literature review on Wi-Fi Fingerprinting. Begin work on the dissertation.	- Finished literature review on Wi-Fi Fingerprinting.
Week 7 (5/08/2024)	Expect to finish writing the introduction for the dissertation. Start completing the Background Research section for the dissertation.	- Chapter 1: Introduction - Chapter 2: Background Research
Week 8 (12/08/2024)	During this week I will try to add all the experiments I performed during the practical phase of the project. (includes proof of concepts, application to a synthetic dataset, and application to the competition dataset). I will also create a section detailing my findings.	- Chapter 3: Experiments - Chapter 4: Experiment Findings - Deliver copy of draft dissertation by 16 August 24.

	By this week I should be able to produce a draft dissertation to send to my supervisor.	
Week 9 (19/08/2024)	Begin making amendments to the dissertation given the feedback on the draft dissertation. Should produce a section on professional issues regarding the ethical nature of the technology. There should also be a section regarding the technologies and libraries used to help produce the experiments.	- Chapter 5: Technologies and libraries - Chapter 6: Professional Issues
Week 10 (26/08/2024)	Get any additional feedback on later sections and apply them to the dissertation. Produce sections for Abstract and Conclusion. Make any final changes to all sections and submit the dissertation.	- Abstract - Chapter 7: Conclusion - Produce complete dissertation by 29 August 2024.