**COMP4092 Logbook**

**1.0 Week 4 – Semester 2**

**1.1 Prior to 15/08/2022**

* After confidently putting Steve Cassidy’s project as my number 1 preference, I did some very basic initial research into tensorflow lite and its relevance towards the project.
  + It seemed that its purpose was to provide mobile devices (android/ios) with the ability to implement machine learning models for various purposes.
  + The project description highlighted that the application would need a machine learning model that could tag photographs taken on the device.
    - Based on this description the problem seems like a vision based/ image classification problem.

**1.2 15/08/2022**

* With the project being confirmed as Steve Cassidy’s project, there was no hesitation to contact Steve to see what further steps can be taken to start exploring the problem.
* Steve promptly replied pointing me to begin some initial research on ML models for:
  + Vison problems
  + Mobile devices
* Steve also suggested so initial research into the FAIMS application as they are the industry partner that will benefit from my developments.
* I found an academic paper which explained what the FAIMS mobile application is, it’s a native android application which is supported by an Ubuntu server. I assume that the front-end is managed by Java/ Kotlin code for UI design and the backend handles all the data.
* The purpose of the application seems to be to provide the user (archaeologists, biologists, geologists, generally field workers) with the ability to efficiently capture data that would satisfy the requirements of standard fieldwork collection.
* It seems like the purpose of this application is to make the process of collecting data in the field efficient compared to having to manually write the data down.
* I refreshed my knowledge on the applications of machine learning as I hadn’t studied the area for a while.
* It’s clear that there is a lot of use cases for machine learning and that it can be applicable to this problem and mobile applications in general.
* From my brief initial research, it seems that there is a lot of tools provided for implementing machine learning into a mobile application.
  + Amazon
    - Amazon Rekognition
  + Google
    - Tensorflow
    - Google vision API
    - Mobile vision API
  + Salesforce
    - Einstein Vision
  + Clarifai
* This is only my initial findings, I’m sure there are plenty more libraries and tools which can offer varying results and need to be evaluated to determine the best fitting tool.

**1.3 17/08/2022**

* Unfortunately, the planned meeting was postponed, however Steve directed me to the next steps of research for the project for the week.
* Questions for the project are starting to now form as I have a clear direction of what I’m meant to be exploring