

**ARTIFICIAL INTELLIGENCE PROGRAMMING PROJECT**

**Project Management Plan**

**Group 3: Apply attention-based model in Healthcare Representation Learning and Diagnosis Prediction**

– Hanoi, September 2021 –

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# II. Project Management Plan

## 1. Overview

### 1.1 WBS & Estimation

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **WBS Item** | **Complexity** | **Est. Effort** |
| ***1*** | ***Research*** |  |  |
| 1.1 | Learn about previous works | Medium | 2 |
| 1.2 | Learn Pytorch | Simple | 2 |
| 1.3 | Learn maths and other coding conventions (if needed) | Simple | 2 |
| ***2*** | ***Prepare data*** |  |  |
| 2.1 | Download and store data | Simple | 1 |
| 2.2 | Pre-processing data | Medium | 3 |
| ***3*** | ***Desgin*** |  |  |
| 3.1 | Figure out algorithms needed by code | Hard | 5 |
| 3.2 | Prototyping and define flows | Medium | 4 |
| 3.3 | Figure out data loader | Hard | 5 |
| ***4*** | ***Implement*** |  |  |
| 4.1 | Code | Hard | 3 |
| 4.2 | Debug | Hard | 4 |
| ***5*** | ***Finalize and documentation*** | ***Medium*** | ***4*** |
| ***Total Estimated Effort (man-days):*** | | | ***33 - 35*** |

### 1.2 Project Risks

*[List out the details on project risks in the table below]*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Risk Description** | **Impact** | **Possibility** | **Response Plans** |
| 1 | Previous works is not open-sourced to learn from | 3.5/5 | Medium | Try to implement myself or looking for model diagrams |
| 2 | Can’t implement new model from scratch | 3.5/5 | High | Switch to use well-defined library or remove some advanced computing methods |
| 3 | Not enough hardware support to train model | 4/5 | High | Reduce the size of dataset and try to optimize model |
| 4 | Storing data costs too much | 3/5 | Medium | Store data on cloud |
| 5 | Team member get sick, emotional pressure | 5/5 | Medium | Try to maintain a healthy and balanced lifestyle to recover as soon as possible |
| 6 | Team member lose interest in the subject | 1/5 | Medium | Just remind myself of the motivation that make me start |
| 7 | Model predicts inaccurate results | 4/5 | N/A | Try fine-tuning parameters, or debug if needed. If the process goes wrong, just accept the fact and take this chance to learn |