

Adipocyte Hackathon Report Template

TO BE REMOVED BEFORE SUBMITTING This is a template for the project report to be handed in at the hackathon dead-line. The purpose of this document is to enable the end-user to understand the solution and to run the code for evaluation. The report is also a document which allows the end-user to re-produce the result of the solution from scratch.

Furthermore, the quality and coverage of the project report are themselves part of the evaluation criteria for the hackathon contribution. This template thus serves the purpose of aligning the reports from the different hackathon participants, allowing a fair report comparison.

High level description of submitted solution

This section describes the high-level description of the submitted solution. This should include all main steps in the data processing, modelling and analysis. Pointers to code for the different steps. We encourage the use of flow charts and other visual aids when communicating this.

Data Processing

This section describes the steps taken to process the data from raw input to analytical data set. This could include e.g. data loading, data cleaning, filtering augmentation etc. What methods (if any) are used to pre-process the images. The size and form of the resulting analytical data set used for modelling should be documented.

Data Processing Parameters

This section includes descriptions and values of the parameters in the methods used in the processing step to generate the analytical data set.

Model Architecture

This section details the model architecture. Examples of things to include: High level building blocks such as residual learning, dense-connections, multi-path learning etc. We encourage the use figures and other visual aids to help communicate this. Pointers to code for the different steps/parts.

Model Parameters

This section includes description and value of the parameters used to define the model architecture e.g. number of layers, number of high-level building blocks, convolution filter parameters, choice of non-linearities etc.

Model Size

Here is information about the model size including number of trainable parameters and size in memory.

Model Output

Here goes the description of the model output.

Model Training

Training Scheme Overview

This section describes the main parts of the training scheme. Has the training been divided into several phases? Is the learning rate adapted over epochs? What method is used to tune hyper-parameters? All necessary steps to re-produce the training results should be documented here. Pointers to code for the different steps.

Pre-Training

This section describes any potential pre-training that was used to generate the solution. A detailed reference to the additional data set(s) is required as well as a documentation of all processing and training steps.

Loss Function

This section describes the loss function used to train the model(s).

Training Parameters

List all parameters that were *tuned* for the model training, and their values used for the submitted solution. This includes e.g. choice of optimizer, optimizer parameters, drop-out rates, learning rate scheduler etc.

Consistency in training results

This section describes the consistency of the training results. Examples of question to answer include; Is it easy to reproduce the results of the submitted solution? Is the output consistent over training runs?

Training time

This section includes the time it takes to train the model end-to-end. Please specify the hardware that was used for training.

Analysis of Model Performance/Output

This section describes the post-analysis the performance and model outputs that has been necessary to achieve the result on the submitted proposal. How has the output from the evaluation pipe line been connected to the model training scheme? How has the loss function been adapted to target the evaluation pipe line?

Model Execution End-to-End

This section describes how to set up and run the model from raw input to model output, both on training and inference. A step-by-step guide is recommended to avoid missing any steps by mistake.