Outputs

The `outputs` folder contains outputs from several pipelines used in our study. To download all the outputs, you can run

```
cd outputs
bash download_outputs.sh
```

The script contains several dropbox links. You can also manually download them and place them in the right location.

Feature extaction pipeline

The `foundation_features` folders contains features extracted from the pre-trained foundation model for Task 1, 2 and 3. The features are stored in `csv` files with column names `feature_x` corresponding to the dimension `x` of the feature. The total dimensionality of the features is 4096. Below is the structure of the folder,

```
outputs
└── foundation_features
    └── task1
        └── *.csv
    └── task2
        └── *.csv
    └── task3
        └── *.csv
```

For Task 1 and 2, `train_features.csv`, `val_features.csv` and `test_features.csv` correspond to features extracted from train, val and test splits.

For task 3, `lung1.csv` and `radio.csv` correspond to features extracted from LUNG1 and RADIO testing datasets. The process to extract these features are also documented in this README and can be accessed here

Predictions pipeline

In the `predictions` folder, we store the predictions generated by each of the various implementation approaches used in our study. The different implementation approaches used to apply our foundation model to the three downstream tasks are described in this section. The structure of the outputs folder is as below,

```
outputs
└── predictions
    └── task1
        └── *.csv
    └── task2
        └── *.csv
    └── task3
        └── HarvardRT
            └── *.csv
        └── LUNG1
            └── *.csv
        └── RADIO
            └── *.csv
```

For Task 1 and Task 2, we store predictions extracted over a range of different percentages of data used during the model training process (100%, 50%, 20%, and 10%). Predictions are saved for each of the implementation approaches. To

differentiate between the predictions based on limited data percentages, we have appended a suffix `_x_percent.cs`, where 'x' represents the data percentage used

For Task 3, we provide predictions for each of the different implementation approaches when tested on the LUNG1 and RADIO datasets. Validation predictions of the HarvardRT for computing Kaplan Meier curves as presented in analysis notebooks are also provided.

Analysis

To support complete transparency of our work and allow you to have a better understanding of our analysis pipelines, the provided notebooks, with detailed walk-throughs, will help explore our analysis as well as reproduce the figures that are included in our research paper. The predictions extracted are described here.

The analysis notebooks are organized as follows,

```
analysis
└── task1.ipynb
└── task2.ipynb
└── task3.ipynb
└── stability.ipynb
```

Detailed walk-throughs are provided in the notebooks. These notebooks reproduce Figures 2, 3, 4 and Extended Data Figure 3. Please ensure you download additional dependenices as described in the quickstart and that you have downloaded all the outputs from our pipelines.

Shown below are samples from the analysis notebooks