qc_m.pt: Pytorch tensor containing inference outputs of cell type percentages for each spot

gene_sig.csv: CSV file containing genes signatures of each archetype used

nuclei_morphology.csv: CSV file containing morphological features for each spot

run-morphology-starfysh.ipynb: Python notebook used to run Starfysh with morphological features. Notebook is currently set up to run in Kaggle after installing histomicstk, scikit-image, scanpy and Starfysh. Compatible dataset can be loaded from this link into Kaggle, but edit path files if necessary (requires Visium outputs, gene_sig.csv and nuclei_morphology.csv to run):
https://www.kaggle.com/datasets/sarahmiashenleeliu/breastcancerdatset/data

map-xenium-visium.ipynb: Python notebook used to generate analytics metrics and figures from Starfysh outputs. Aligns Visium spots with Xenium cells. Notebook is currently set up to run in Kaggle after installing scanpy and zarr. Compatible datasets can be loaded from this link into Kaggle, but edit path files if necessary (requires Visium outputs, Xenium outputs, and gene_sig.csv to run):
https://www.kaggle.com/datasets/sarahmiashenleeliu/breastcancerdatset/data
https://www.kaggle.com/datasets/sarahmiashenleeliu/xenium-breastcancerdataset

morphology-analysis.ipynb: Python notebook used to analyze morphological measurements produced by CellProfiler. (Requires nuclei_morphology.csv to run.)

archetypal-analysis.ipynb: Python notebook used to calculate archetypes. Notebook is currently set up to run in Kaggle after installing histomicstk, scikit-image, scanpy and Starfysh. Compatible dataset can be loaded from this link into Kaggle, but edit path files if necessary (requires Visium outputs to run):
https://www.kaggle.com/datasets/sarahmiashenleeliu/breastcancerdatset/data

morphology-starfysh: Folder containing updated Starfysh model and Starfysh with morphology outputs (Starfysh_Outputs). Outputs include generative and inference outputs.

System requirements: As outlined by requirements.txt from Starfysh
Input data: As outlined by Final_Report.pdf