**Introduction:**

Classifying breast cancer in its preliminary stages is done with the help of machine learning and the concept of Transfer Learning Algorithm. Here, the classification is done by labeling the tumor as benign or malignant. The machine learning algorithms are implemented by using the scikit library in which transfer learning is also available. The algorithm completely depends upon the dataset that’s run through it and the accuracy of the same. To get the best result, the usage of a pre-trained model approach will bolster the rate of accuracy. Once the algorithm is run, the desired result would be the algorithm predicting if the tumor is benign or malignant so the patient can get the most optimal care.

**Data Source:**

The dataset for the phase 1 of the project was downloaded from: https://web.inf.ufpr.br/vri/databases/breast-cancer-histopathological-database-breakhis/

**Data Design:**

Dataset for Training was:

* benign
  + b1.jpg
  + b2.jpg
* malignant
  + m1.jpg
  + m2.jpg

Dataset for validation was:

* benign
  + b1.jpg
  + b2.jpg
* malignant
  + m1.jpg
  + m2.jpg

**Environment and tools used:**

* Jupyter Notebook
* Numpy
* Pandas
* Scikit-image
* Matplotlib
* Scikit-learn
* Keras

**Model Design:**

