Project 2 Overview

Due Date: Nov 14

Aim

- The aim of this project is to develop a model for Cancer Detection from digital pathology slide scans.

Deliverables

- (?) *Collect some background info of breast cancer and the H&E staining*
- Define your own models and training strategies
- Conduct hyperparameter tuning
- (Optional) Video presentation of results for bonus points

Professor's Notes

- Image augmentation and normalization can be the key to improving performance

Tasks

- **Data**
    - Load data
    - Simple EDA
    - Define training strategy/Train test split
    - Deal with class imbalance
        - Image augmentation
        - Re sampling (over/under sampling)

- **Modeling**
    - Define basic CNN
    - Evaluate model
    - Optimization/Hyperparameter tuning
        - Number of neurons, number of layers, learning rate, optimization algorithm, batch normalization

- **Video Presentation**
    - Slides
    - Record presentation