# Capstone_proposal

April 23, 2019

## 1 AI

### 1.1

2019328

#### 1.1.1

2013kaggle""[?]MRI[?][?]

#### 1.1.2

#### 1.1.3

250001:1..jpg12500

  300~500
  ResNet50ImageNet10001187ResNet50

  $224 \times 224$RGB

#### 1.1.4

ResNet50$(224, 224, 3)$tensor$224 \times 224$1sigmoid$(0, 1)$=1=0sigmoid

$$S(x) = \frac{1}{1 + e^{-x}}$$

  kagglekaggle10%
  epochlog loss

#### 1.1.5

vgg16vgg16ImageNet16[?]

#### 1.1.6

log loss[?]Accuracy[?][?]

$$LogLoss = -\frac{1}{n} \sum_{i=1}^{n} [y_i log(\hat{y_i}) + (1 - y_i) log(1 - \hat{y_i})]$$

  * n * $\hat{y_i}$i * $y_i$i$y_i = 1$$y_i = 0$ * $log()$e
  _Kaggle__Kaggle_10%LogLoss0.05603

samples



miss_labeled

**1.1.7**

$224 \times 224$RGBTensorPytorchvgg16Sigmoid=1=0epoch_kaggle__kaggle_(log loss_Kaggle_10%

**1.1.8**

In [ ]: