Technical University of Munich

Artificial Intelligence for Embedded Systems

WS 18-19

Status Report (I/II)

Lung Cancer Detection

Prepared by

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1. Tasks accomplished

Significant progress has been made since our last presentation. We tested different architectures by introducing different layers and have finalized our network layers and number of nodes in it. The training session is almost over for our model and we are somewhat near our desired results. Slight improvements are still expected as we are currently further fine tuning our hyper-parameters. Below mentioned are the highlights of major tasks that have been accomplished.

- Training the model
- Hyper-parameter tuning
- Testing
- Learning how to import a dummy network on Raspberry-pi

Next phase is to reach satisfying results and evaluating our model performance. Some important milestone to achieve are mentioned below:

- Getting better results after tuning Hyper-parameters
- Testing our neural network
- Performance evaluation of the model
- Network Compression
- Importing model to Raspberry-Pi
- Final testing on Pi

2. Team contribution

Task	Team Members
Creating/Finalizing CNN Model	Sarfaraz , Ali
Hyper-parameter Search	Zain, Sarfaraz
Training Phase	Ahmed, Ali
Evaluating Results	Ahmed, Zain
Fine Tuning Hyper-parameters	Sarfaraz, Ali
Getting started on Pi	Ahmed, Zain

3. Any major deviation from the proposal

As of yet, there are no major changes or deviations from the proposal, and our project is aimed to accomplish the objectives initiated in our Project Proposal that is Lung cancer detection.

4. Any major hurdles ahead?

The major hurdle ahead is the network compression, since our model has millions of parameters and in order to put it in a resource constraint device like Pi is a difficult task. We have already started searching different methods to do it as learned in class and are determined to implement it in next phase.