Project Report

Project Name :	Extracting respiratory rate and Blood Pressure form Photoplethysmogram
Date:	21 May 2019 - 20 July 2019
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Overview -

Used Machine Learning to get Blood Pressure and Respiratory Rate from Photoplethysmogram. The present work this area is mostly done by signal processing which is intuitively the most promising way, but the neural network we used in this project manages to learn the signal features to extract the desired values from Photoplethysmogram. In the case of Blood-Pressure, we were able to compare our results with the present state of the art values because of the availability of the same dataset, and our results are significantly better.

Lessons Learned -

- Using google cloud computing services, which provide reasonably fast environments for heavy work.
- Learned Pytorch which is becoming most popular framework for the Neural Networks because of its available optimised implementation with Nvidia GPU.
- Learned the working of U-Net which is the basis of the Neural Network we used in this project.
- Much usable knowledge about the IoT products

Experience -

This being my first industrial intern gave me the whole new experience of the outside world. The two months of this intern were very enjoyable and interesting, especially when one gets great work environment created by such friendly and helping colleagues. This intern motivated me to move out of my comfort zone of college life and look into the ground-breaking inventions industry is doing. I believe the product Yogifi is the best work of this kind and will soon hit the stores across the globe helping people with better healthcare.