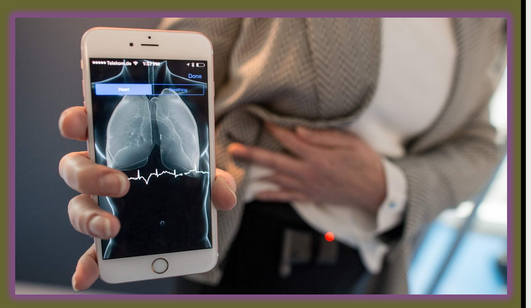
AI SMART HEALTH
BUSINESS ANALYSIS 3.2 PROJECT

VAAL UNIVERSITY OF TECHNOLOGY
Inspiring thought. Shaping talent

FACULTY OF APPLIED & COMPUTER SCIENCES

Group Members



INTRODUCTION

We are building artificial intelligence (AI) applications for providing diagnoses to patients. Diagnosis tools based on AI offer several advantages concerning the traditional approaches using analytics and clinical decision-making techniques because it enables continuous improvement. AI-based tools can constantly learn and improve performance as they are fed with more real-time based data. We aim to provide an application of AI diagnosis and classification of heart diseases.

MACHINE LEARNING

Our app improves how it performs diagnoses tasks based on how the machine performed in experience.
It will also differ from performing the task always the same way because it has learned to do so,
It will be able to do future predictions about the patient
The goal of this semi-supervised machine learning is to label data with a large amount of unlabelled data

Steps were taken to achieve this learning:

1. Use labelled data to train model
2. Use the model to predict labels for the unlabelled data
3. Use the labelled data and newly generated labelled data to create a model

Figure 1. Label in 24pt Arial.

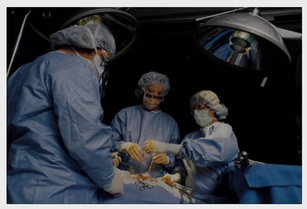


Figure 2. Label in 24pt Arial.

TECHNIQUES

- feedforward neural networks,
- feedback neural networks, machine learning algorithms:
- Support Vector Machine
- Decision
- Logistic Regression
- Naïve Bayes
- Deep Learning
- Generalized Linear Model
- Random Forest
- K-Nearest Neighbours