Early Detection of Chronic Kidney Disease using Machine Learning

Chronic Kidney Disease prediction is one of the most important issues in health care analytics. The most interesting and challenging tasks in day-to-day lives as one third of American Adult population is affected by chronic kidney disease (CKD), and millions die each year because they do not have access to affordable treatment. Chronic Kidney disease can be cured, if treated in the early stages. The main aim of this project is to predict whether the patient have chronic kidney disease or not in a painless, accurate and faster way based on certain diagnostic measurement like Blood Pressure (Bp), Albumin(A), etc., and then appropriate treatment can be given based on the details provided by the model.

What do they THINK AND FEEL?

- We are literally observing a change in lifestyle which increases the risk of getting this disease
- Only younger generations will believe in these shortcut techniques
- Slowly the trend is changing, doctors must be ready to learn new stuffs
- I think hospitals are using only the conventional methods to extract money from us
- Accuracy of your prediction depends on the model which you use to train the data

What do they HEAR?

what friends say
what boss say
what influencers say

- Yeah! It's indeed a deadly disease. We have to diagnose it as quickly as possible
- You are expected to do something different and attractive!
- Everyone is coming up with their own model but we don't have any standardized one for global implementation
- Is it a hereditary one? as I see many relatives in my family suffering from this!
- Opinion of a Layman... Can a piece of code identify a disease??

Chronic kidney disease

What do they SEE?

environment
friends
what the market offers

- Will it increase the lifespan of human beings?
- Will your project reach out the global market?
- There are many similar projects available. Why I have to choose/use yours?
- What are the parameters your project will monitor?
- I don't care about the process, we see only the end result!

What do they SAY AND DO?

attitude in public
appearance
behavior towards others

- These modern facilities are not available to a common man
- Healthy diet recommendation based on the severeness of the disease
- Though many ML models are available, I would rather support reliable traditional diagnostic tools
- Is CKD detection using ML really helpful for the society?

PAIN

fears
frustrations
obstacles

- Searching for a donor is kinda worst Experience
- I have suffered a lot while doing Kidney Transplant
- Ahh! How difficult it is to debug 500 lines of project's code!
- Whatever may be the technique, I need to get my disease cured in a painless way!

GAIN

"wants" / needs
measures of success

- Alas! Atlast Engineers have found a ML technique to solve this problem
- Wow! The Dream of Instant diagnosis of this disease has come true!
- Save the life of a person at risk or in danger
- Sense of inspiration to apply ML method for solving other types of Diseases