

In The Name of GOD

This is the documentation for my cs50 final project. My name is Omid Airom and I have just finished my cs50 course by submitting all problem sets and labs and finally my final project. Before the course I had some knowledge of Python and Machine Learning techniques with python. I also had some experience with the Kivy GUI. As I was a kid I always dreamed of being a doctor and helping people. As I grew up I found that I'm more interested in computers and Tech so I became an engineer and started to learn programming, but I still wanted to help people. When I was learning programming I realized that we can find some patterns in almost every dataset we have and predict some features according to the data we have for new data by building a model based on the data we have. Then I started to learn machine learning and use it to predict illnesses and help people in their curing processes.

When I finished all my problem-sets and labs in the cs50 course I had to decide about my final project. So I took the opportunity and decided to build an app based on ml to predict if a patient with heart problems is in the risk of death by heart failure or not. To do this, I searched and found a dataset on the Kaggle website and downloaded it. Then I used the Jupyter notebook and build a linear regression model based on the data I had and saved it with the pickle library. Then using the python Kivy library I built a GUI for my app that by entering new data the user can predict if the patient with that data is in the risk of death by heart failure or not. The model I built had 76% accuracy and I'm planning to improve it in future.

Hope you enjoy my code!

Omid Airom