**Heart Disease Prediction using Deep Learning**

A

MAJOR PROJECT PROGRESS REPORT

Submitted by

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BACHELOR OF TECHNOLOGY

IN

COMPUTER SCIENCE AND ENGINEERING

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**Progress Report Summary**

As we all know heart diseases or cardiovascular diseases (CVD) are increasing since past few years. CVD constituted for a third of all deaths in 2019, according to research published in the Journal of the American College of Cardiology. Cardiovascular Diseases are a leading cause of deaths in all over the world and it in turn contributes to disability and steep increase in costs of healthcare. CVD does not just happen to older adults; it may also target the younger adults more and more often. This is partly because the conditions that lead to heart disease are happening at younger ages. The main reason behind that is a higher rate of obesity and high blood pressure among young demographic (ages 35-64) are putting them all at risk for serious heart diseases earlier in life. CVD can occur when arteries that supply blood and oxygen to our heart muscle and other organs become clogged when fatty material called plaque or atheroma. This process is called atherosclerosis. If our arteries become too narrow, less blood can reach our heart muscle or our brain. When this happens in arteries of the heart, it can lead to symptoms such as angina. If a blood clot forms in the narrowed artery and blocks the blood supply to part of your heart, it can cause a heart attack. If this happens in the arteries supplying blood to the brain, this can cause a stroke. Over the last decades, although the age-standardized mortality rates of CVD declined by 27.3%, the number of deaths increased by 42.4% from 1990 to 2015. CVD led to over 17 million deaths, 330 million years of life lost and 35.6 million years lived with disability in 2017 worldwide. Hence in the present endeavour, we have attempted to build something related to it, that is deciding whether a person has a possibility of having a heart disease in future based on the various factors and numbers.

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| Weeks | Task | Status |
| 11 February - 18 February | Discussions sessions with the team members to finalize the idea topic | Completed |
| 20 February - 24 February | Preparation of synopsis document | Completed |
| 25 February - 12 March | Researched on the existing applications that were made to counter similar issues. | Ongoing |
| 13 March - 19 March | Explored and studied about one of the tools and technologies required for the project. | Completed |
| 20 March – 27 March | Collected data using Kaggle and explored and read about training of the model. | Completed |
| 28 March - Present | Hands on practice on explored algorithms and learning the algorithm to detect face in a video. | Ongoing |