

Mentored By : Mr Sachin Garg & Mr Varun Goel

Software Fault Prediction

Minor Project

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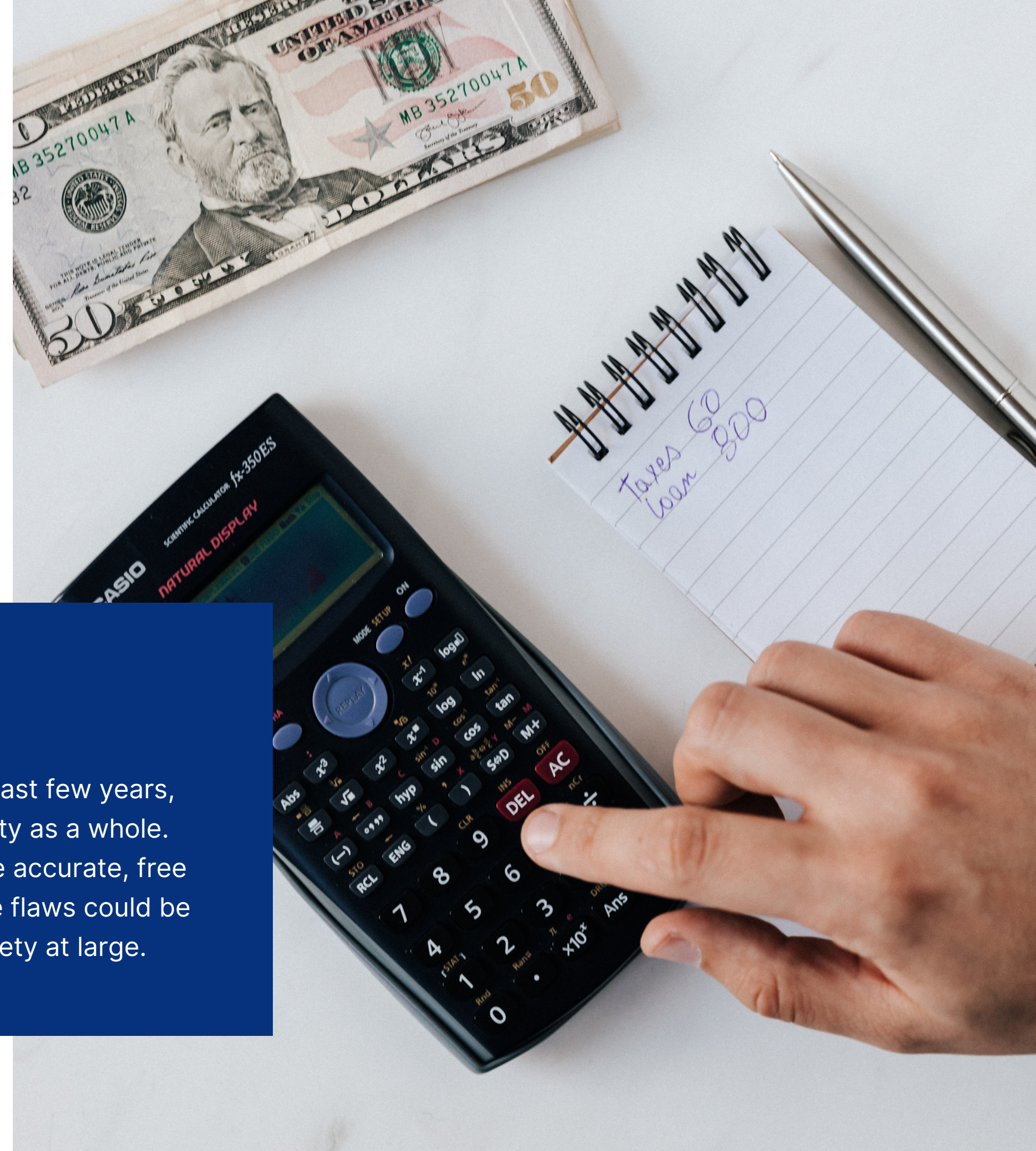
Software Fault Prediction

We impacting the tech industry



Abstract

The IT and software industry has grown tremendously over the past few years, creating an increasing impact on the lives of people and on society as a whole. Consequently, we must make the software and applications more accurate, free of major errors, and more reliable. Therefore, predicting software flaws could be very useful in the IT field and will have a profound impact on society at large.



Software Fault Prediction

Objectives



To determine algorithms using machine learning that can perform better in predicting the faults in software than the existing ones.



To improve the results with the help of current datasets available on the internet using our algorithms.



To use different evaluation benchmarks to evaluate the performance of our model.



The overall scope of the project is to create an automated software fault predicting model using machine learning techniques that will make the software more efficient and reliable to use.



Software Fault Prediction

Methodologies we are going to use

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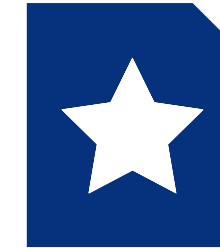
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Software Fault Prediction

Studying articles & research papers

As we proceed with this project, we will be referring to different resources like datasets, research papers, articles, etc. This will help us to implement efficient and optimised algorithms for predicting the faults of software.

The more reliable the software is, the more valuable it becomes, and the less likely the software is to contain faults.



C. Catal, U. Sevim, B. Diri "Software Fault Prediction of Unlabeled ProgramModules" Proceedings of the World Congress on Engineering 2009



Felix Salfner, MarenLenk, and Miroslaw Malek, "A Survey of Online Failure Prediction Methods," ACM Computing Surveys, Vol. 42, No. 3.

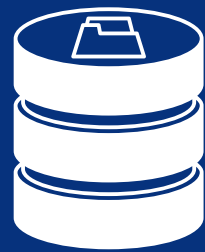


Du Zhang., Jeffrey J.P. Tsai., "MachineLearning & Software Engineering". Software Quality Journal, 11, 87–119.



M. Hecht, K. S. Tso, S. Hochhauser "The Enhanced Condition Table Methodology for Verification of Fault Tolerant and other Critical Software"

Analysing huge Datasets

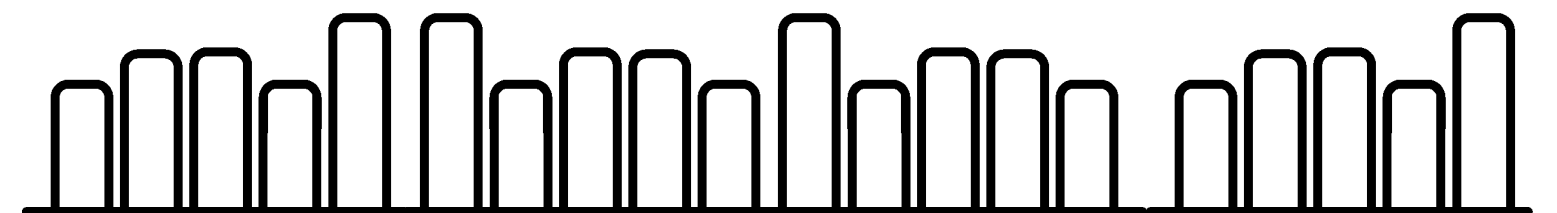


These are the datasets that we are going to be using to ensure that our model works properly and efficiently.

Sensor Fault Detection Data

Help to limit the consequences of failures in automation systems

Benchmark Datasets for Fault Detection and Classification in Sensor Data



Thank you!

