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**“Funders” A Venture Capital Investment Evaluation System Using
Machine Learning**

A Dissertation By

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ABSTRACT

Startups and businesses are the driving force that contributes to the economy of the country. For startups to gain success they need funding from outside sources, these sources are known as Venture Capitalists. The venture capital industry has grown significantly in the past decade with more and more startups eventually becoming mega corporations through the fundings they receive. however, VC industry is a high-risk industry and when looking for a potential startup to invest in the investment evaluation process can be challenging due to the high degree of uncertainty involved. Majority of the startups tend to fail, and most investors end up in a huge loss as a result of not properly identifying an investment worthy company.

As a solution to the above given problem the author has implemented an investment evaluation system using with two components, A startup classification system and a novel startup valuation system. The startup classification system is multi class classification system that was implemented using Cat Boost Classifier algorithm which is a state-of-the-art gradient boosting framework. And the valuation system as regression model using the gradient boosting algorithm.

The cat boost framework outperformed all other algorithms giving the multi class classification model a high accuracy of 74% and the gradient boosting algorithm outperformed other regression models with R2 score of 0.54 considering there was no previous research done to value a startup company.