



# UNIVERSITY OF BIRMINGHAM

SCHOOL OF COMPUTER SCIENCE  
COLLEGE OF ENGINEERING AND PHYSICAL SCIENCES

MSc. PROJECT

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## Machine Learning & Deep Learning Approaches to Predict Credit Card Default

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Submitted in conformity with the requirements  
for the degree of MSc. Artificial Intelligence & Computer Science  
School of Computer Science  
University of Birmingham

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## **Abstract**

The material contained within this report has not previously been submitted for a degree at the University of Birmingham or any other university. The research reported within this report has been conducted by the author unless indicated otherwise.

**Keywords** Credit Card Default Prediction, Ensemble Learning

### **Declaration**

The material contained within this report has not previously been submitted for a degree at the University of Birmingham or any other university. The research reported within this report has been conducted by the author unless indicated otherwise.

**Signed** Sarathkumar Padinjare Marath Sankaranarayanan

“You have to learn the rules of the game.  
And then you have to play better than anyone else”

ALBERT EINSTEIN

# MSc. Project

## Machine Learning & Deep Learning Approaches to Predict Credit Card Default

Sarathkumar Padinjare Marath Sankaranarayanan

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## Table of Abbreviations

## **1 Introduction**

sdasdfs

### **1.1 Motivation**

safsf

### **1.2 Aim & Approach**

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### **1.3 Structure of Report**

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## **2 Background Knowledge**

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### **2.1 Summary**

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### **3 Literature Review**

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#### **3.1 Summary**

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## **4 Materials**

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### **4.1 Dataset**

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### **4.2 Tools & Software**

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## **5 Methodology**

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### **5.1 Summary**

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## **6 Results & Discussions**

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### **6.1 Summary**

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## **7 Conclusion & Summary**

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### **7.1 Summary**

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## **8 Appendix One: Code**

### **8.1 Directory Structure**

### **8.2 Running the Provided Code**