

TABLE OF CONTENTS

Title Page	i
Certificate	ii
Declaration	iii
Acknowledgment	iv
Abstract	v
List of Figures	vi
List of Tables	viii
1. INTRODUCTION	1
1.1 Objective	2
1.2 Problem Definition	2
1.3 Existing System	2
1.4 Proposed System	2
1.5 Organization of Report	3
2. LITERATURE SURVEY	4
2.1 Prediction Factors	6
2.2 Validation	8
2.3 Decision Trees and Random Forests	9
2.4 Decision Tree Hyperparameter Tuning	10
3. METHODOLOGY	12
3.1 System Design	12
3.2 Modules	13
3.3 Technologies Used	13
3.3.1 Python	13

3.3.2 NumPy	14
3.3.3 Google Collab	15
3.3.4 Scikit-learn	16
3.3.5 Azure	16
3.3.6 Domain name and SSL Certificate	17
3.3.7 Api	17
3.3.8 SSH Client	18
3.4 Diagrammatic Representation	19
3.4.1 Data Flow Diagram	19
3.4.1.1 DFD Level 0	19
3.4.1.2 DFD Level 1	20
3.4.2 UML Diagram	21
3.4.2.1 Class Diagram	21
3.4.2.2 Use Case Diagram	22
3.4.2.3 Sequence Diagram	24
3.5 Implementation of Proposed solution	25
3.6 System Requirements	38
4. RESULTS AND DISCUSSIONS	40
5. CONCLUSION AND FUTURE WORK	47
REFERENCES	48
APPENDIX	49