

Contents

1	Motivation	4
2	Introduction to Fifa Ultimate Team	5
2.1	Structure of the game mode	5
2.1.1	Chemistry	6
2.1.2	Attributes	7
2.2	Different Card Types	8
2.3	The transfer market	9
2.4	Summary	9
3	Problem formulation	10
3.1	Regression	10
3.2	Linear Regression	11
3.3	Support Vector Machine	12
3.4	Random Forest	14
3.5	Deep Learning	15
3.5.1	General architecture	16
3.5.2	Gradient Descent	16
3.5.3	Backpropagation	17
3.5.4	Batch Normalization	17
4	Deep Learning application	18
4.1	The data set	18
4.1.1	Data-Scraping from Futbin	19
4.1.2	Processing the data	20
4.2	Code setup	22
4.3	Export from the model	22
4.3.1	Tensorboard export	22
4.3.2	RMSE and prediction export	23
4.3.3	Hyperparameter determination	23
5	Results of the different approaches	28
5.1	Linear Regression	28
5.2	SVR	29

5.3 Random Forrest	30
5.4 Deep Learning	30
6 Conclusion	31
List of figures	33
Bibliography	36