Decision Support Systems Team 3

Repport
Aarhus University, Science and Technology
Lector: Christian Fischer Pedersen

February 26, 2018

Name	Study number	Signature
David Jensen	11229	
Henrik Bagger Jensen	201304157	
Ólafur Dagur Skúlason	IY11249	
Titas Urbonas	201700321	
Christian M. Lillelund	201408354	

Contents

ontents		i
Introduct	ion	1
_		
	·	5
Subset Se	election	9 11
J		13
		15 17
-		19
	Regressio 2.1 Multi 2.1.1 2.1.2 2.1.3 2.1.4 2.1.5 2.1.6 2.1.7 Linear Di Cross Val Subset Se Shrinkage Clustering Discussion Conclusion Perspecti	Introduction Regression 2.1 Multiple Linear Regression 2.1.1 Theory 2.1.2 Results 2.1.3 Conclusion 2.1.4 Logistic Regression 2.1.5 Theory 2.1.6 Results

Chapter 1: Introduction

Chapter 2: Regression

This chapter details the work of LAB exercise 3.6.2, 3.6.3, 4.6.1 and 4.6.2 from "An Introduction to Statistical Learning". It starts by recapitulating the theory behind linear regressions, both simple and multiple, then proceeds to describe the accompanied LAB exercises and conclude on their findings.

2.1 Multiple Linear Regression

2.1.1 Theory

Basic theory for simple and multiple lin regs here. From the slides or book.

2.1.2 Results

LAB 3.6.2 + 3.6.3

2.1.3 Conclusion

2.1.4 Logistic Regression

2.1.5 Theory

Basic theory for logistic lin regs here. From the slides or book.

2.1.6 Results

LAB 4.6.1 + 4.6.2

2.1.7 Conclusion

Chapter 3: Linear Discriminant Analysis

Chapter 4: Cross Validation

Chapter 5: Subset Selection

Chapter 6: Shrinkage Methods

Chapter 7: Clustering Methods

Chapter 8: Discussion

Chapter 9: Conclusion

Chapter 10: Perspectives

Chapter 11: References