

Seminar Thesis

fairML - a Case study of the SQF dataset

Department of Statistics
Ludwig-Maximilians-Universität München

Juliet Fleischer

Munich, December, 9th 2024



Submitted in fulfillment of the requirements for the degree of B. Sc.
Supervised by Dr. Ludwig Bothmann

Abstract

In this study we provide an introduction to the most common fairness definitions, illustrating them with the example of the SQF dataset.

Acknowledgement

I would like to take this opportunity to thank all those who have supported me in the time of my Bachelor's thesis.

First and foremost, I would like to thank my supervisor Prof. Dr. Göran Kauermann and my advisors Cornelia Gruber and Katharina Hechinger for their guidance and for providing me with a topic that fit my character and interests so well. Their support, critique and fast responses have been of much help to me.

Secondly, I would like to thank my friends, Jan Anders, Michael Speckbacher, Philip Studener, Juliet Fleischer, Yichen Han, Justin Lampman, Cosima Fröhner, Omaina Mossadeq, Felipe Gentilini, Helena Veit, Maxim Winter and many others, for their support and for being there for me when I needed a break from my work and for their time in which they listened to me going over my ideas and thoughts for my thesis. Those discussions have often helped me to clarify my thoughts and to find new ideas.

Furthermore, I would like to thank my family for their support, for always being there for me when I needed it and for pushing me to do my best. I know, it took me a bit longer than expected to get to this point, but I am very thankful for their patience with me.

Lastly, I would like to thank my wonderful partner Sophie Hopp for her support, her patience and her love. Without her, I would not have been able to finish my thesis in time. Probably, I would not even have started it yet. Her love and support have been invaluable to me and I am very grateful for that.

Contents

1	Introduction	1
A	Electronic Appendix	V

List of Figures

List of Tables

1 Introduction

Das ist die erste Zeile in meinem intro.tex File. lorem ipsum dolor sit amet, consectetur adipiscing elit. Battleday et al. (2020)

A Electronic Appendix

Data, code and illustrations are available in electronic form.

References

Battleday, R. M., Peterson, J. C. and Griffiths, T. L. (2020). Capturing human categorization of natural images by combining deep networks and cognitive models, *Nature Communications* **11**(1): 5418.

Declaration of authorship

I hereby declare that the report submitted is my own unaided work. All direct or indirect sources used are acknowledged as references. I am aware that the Thesis in digital form can be examined for the use of unauthorized aid and in order to determine whether the report as a whole or parts incorporated in it may be deemed as plagiarism. For the comparison of my work with existing sources I agree that it shall be entered in a database where it shall also remain after examination, to enable comparison with future Theses submitted. Further rights of reproduction and usage, however, are not granted here. This paper was not previously presented to another examination board and has not been published.

Munich, December, 9th 2024

Juliet Fleischer