KTH Information and
Communication Technology

Data-Efficient Deep Learning for Independent Binary Outputs

Exploration of importance-weighted active learning, ensembling, joint training and class imbalance correction to reduce label complexity and training time in affiliate e-commerce product clasification

MATTIAS ARRO

Master's Thesis at KTH Information and Communication Technology
MSc Data Science (EIT Digital track)

Academic Examiner: Magnus Boman
Academic Supervisor: Jim Dowling
Industrial Supervisor: Abubakrelsedik Karali

2018

Abstract

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

Keywords: Deep learning, machine learning, neural networks, active learning

Referat

Denna fil ger ett avhandlingsskelett. Mer information om LaTeX-mallen finns i dokumentationen till paketet.

Acknowledgment

..... London, UK, March 23, 2018
Mattias Arro

Contents

Introduction

Background

Problem

Research Questions

Purpose and Goal

Methodology

Evaluation

Work Environment

Deployment Environment

Ethics and Sustainability

Delimitations

Outline

Discussion

Conclusion

References

Declaration

I hereby certify that I have written this thesis independently and have only used the specified sources and resources indicated in the bibliography.

London, UK, March 23, 2018

.....
Mattias Arro

RDF

And here is a figure

Figure 1. Several statements describing the same resource.

that we refer to here: 1