Untitled Project

Machine Learning Metaphors
Machine Learning, Human Understanding
Machine Learning and the Human Brain
Kicking the tires of ML models
Data and decisions
Mechanical Knowledge: Opportunites and Limits of Machine Learning (Plinko Picture)
Deriving Knowledge from Data: Risks and Opportunites
Deriving Knowledge from Data: Changing the future, while looking at the past

Brad Flaugher

September 8, 2022

We have now accumulated sufficient evidence to see that whatever language the central nervous system is using, it is characterized by less logical and arithmetical depth than what we are normally used to.

– John von Neumann

Children can learn to use computers in a masterful way, and ... learning to use computers can change the way they learn everything else.

– Seymour A. Papert

Preface

I am of the opinion that every LaTeX geek, at least once during his life, feels the need to create his or her own class: this is what happened to me and here is the result, which, however, should be seen as a work still in progress. Actually, this class is not completely original, but it is a blend of all the best ideas that I have found in a number of guides, tutorials, blogs and tex.stackexchange.com posts. In particular, the main ideas come from two sources:

- Ken Arroyo Ohori's Doctoral Thesis, which served, with the author's permission, as a backbone for the implementation of this class;
- The Tufte-Latex Class, which was a model for the style.

The first chapter of this book is introductory and covers the most essential features of the class. Next, there is a bunch of chapters devoted to all the commands and environments that you may use in writing a book; in particular, it will be explained how to add notes, figures and tables, and references. The second part deals with the page layout and design, as well as additional features like coloured boxes and theorem environments.

I started writing this class as an experiment, and as such it should be regarded. Since it has always been intended for my personal use, it may not be perfect but I find it quite satisfactory for the use I want to make of it. I share this work in the hope that someone might find here the inspiration for writing his or her own class.

Federico Marotta

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Introduction 1

1.1 The Main Ideas

This is some text and a link to bradflaugher.com. [1]

1.2 What This Class Does

(see also Section **??** on page ??)

List Item 1 It's a list, yo!
List Item 2 Second item in the list.

```
cd myproject
docker run tensorflow
#profit!
```

`tex.stackexchange.org` for help.

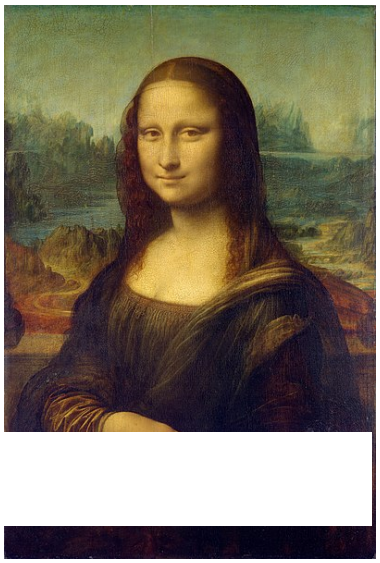

Figure 1.1: The Mona Lisa. `https://commons.wikimedia.org/wiki/File:Mona_Lisa,_by_Leonardo_da_Vinci,_from_C2RMF_retouched.jpg`

Codified Human Understanding

How Machines Understand Data

Who makes the call?

Classifying Data

Transforming Data

Ensembles and Chaos

Appendix

A

Poetry Test

Let's say we want to build an ensemble model to analyze poetry, put a haiku into craiyon's online shit, then we categorize the resulting photo. [1]

[1]: Andreu et al. (2021), *Humans won't be able to control a superintelligent AI, according to a study*

Bibliography

Here are the references in citation order.

[1] Abraham Andreu and Qayyah Moynihan. 'Humans won't be able to control a superintelligent AI, according to a study'. In: *Business Insider* (Sept. 24, 2021). (Visited on 09/24/2021) (cited on page 9).

Notation

The next list describes several symbols that will be later used within the body of the document.

c	Speed of light in a vacuum inertial frame
h	Planck constant

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