

# PROJECT REPORT LATEX TEMPLATE

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## Abstract

The abstract may be the only bit a reader will review to decide to continue reading the whole report. It should contain the motivation addressing why the study was done, the method, results and contributions.

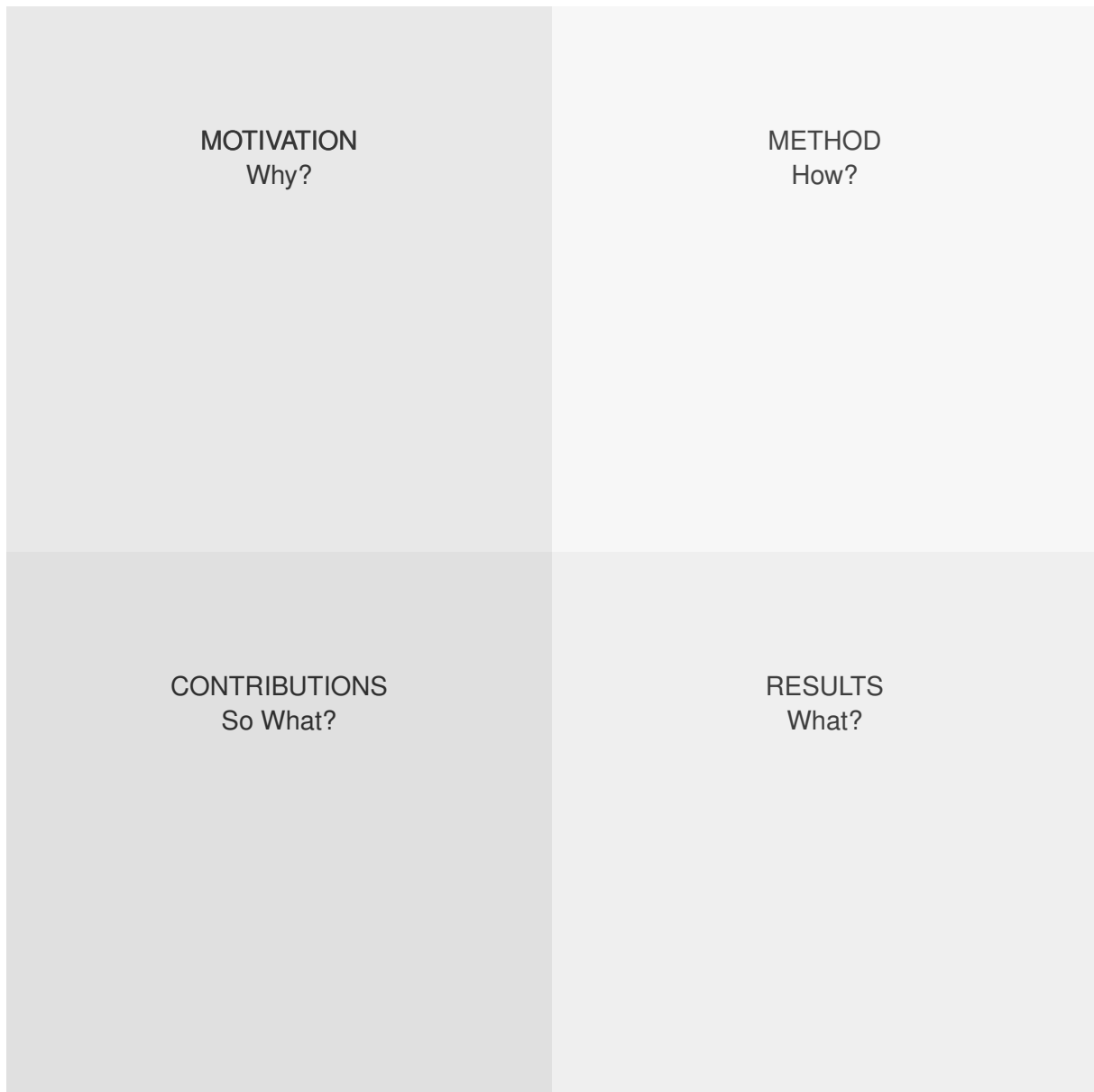


Figure 1: Graphical Abstract. It is a graphical representation of the project, including the motivation, method, results and contributions. Examples of graphical abstracts can be found in (Elsevier, 2024; Velarde et al., 2024). Source: Own results.

# 1 INTRODUCTION

This is a  $\text{\LaTeX}$  template to present reports.

## 1.1 Content

In general, reports:

- introduce a topic, explaining the motivation and goals of the work,
- describe the method,
- present the results, and
- conclude discussing the implications of the work.

## 2 METHOD

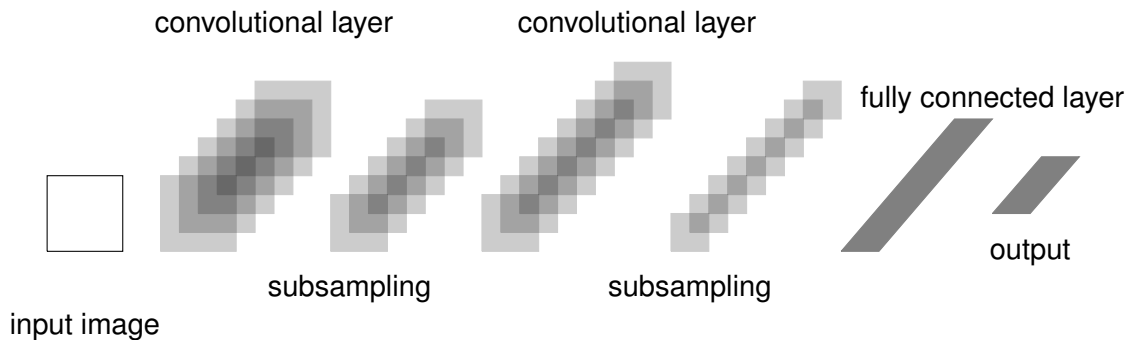


Figure 2: Architecture of a convolutional neural network by LeCun et al. (1989). This network has two convolutional layers, each followed by a subsampling layer. A fully connected layer precedes the output layer. Source: The latex code for this image was adapted from (Stutz, 2020).

This section can be used to present a method. In this template, it will be used to present examples to demonstrate how to present material and reference it. Captions of tables and figures should clearly explain the presented content, see for example Table 1 and Figure 2. Next, see an example of a mathematical expression, where  $x$  is the input to a Rectified Linear Unit (ReLU) activation function (Goodfellow et al., 2016):

$$f(x) = \max(0, x). \quad (1)$$

Finally, this is how you cite online material (Stutz, 2020), an article (LeCun et al., 1989), and a book (Velarde, 2023). Quotations should be referenced with page numbers, for example: “There is no shortage of stories of those who with a brilliant idea and computational skills, have gone from a garage to an empire in the Artificial Era in just a few years” (Velarde, 2023, p. 1).<sup>1</sup>

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<sup>1</sup>Avoid using footnotes.

### 3 RESULTS

Present results and summarise the findings in tables if necessary, see for example Table 1.

Section	Characteristics
Introduction	Explains why the work was carried out.
Method	Describes in detail how to do something (know-how).
Results	Presents the findings.
Conclusion	Discusses the implications of the work.

Table 1: Basic sections in a report. Source: Own results.

### 4 CONCLUSION

This template should help you get started with your report. Place yourself in the reader's shoes and consider what your reader wants and needs to know about your report. The quality and clarity of the report are essential, not quantity.

### References

- Elsevier. (2024). *Graphical abstract*. <https://www.elsevier.com/researcher/author/tools-and-resources/graphical-abstract>. ([Online; accessed 4-April-2024])
- Goodfellow, I., Bengio, Y., & Courville, A. (2016). *Deep learning*. MIT press.
- LeCun, Y., Boser, B., Denker, J., Henderson, D., Howard, R., Hubbard, W., & Jackel, L. (1989). Handwritten digit recognition with a back-propagation network. *Advances in neural information processing systems*, 2.
- Stutz, D. (2020). *Collection of latex resources and examples*. <https://davidstutz.de/illustrating-convolutional-neural-networks-in-latex-with-tikz/>. ([Online; accessed 22-November-2023])
- Velarde, G. (2023). *Artificial Era: Predictions, Problems, and Diversity in AI*. London: Oxford University Press.
- Velarde, G., Weichert, M., Deshmunkh, A., Deshmane, S., Sudhir, A., Sharma, K., & Joshi, V. (2024). Tree boosting methods for balanced and imbalanced classification and their robustness over time in risk assessment. *Intelligent Systems with Applications*, 22, 200354. Retrieved from <https://www.sciencedirect.com/science/article/pii/S2667305324000309> doi: <https://doi.org/10.1016/j.iswa.2024.200354>