
Project Report

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xAI-Proj-M: Domain Generalization

Degree: M.Sc. AI

Abstract

Here the abstract

1 Introduction

2 Methods

3 Experiments & Results

4 Discussion

5 Conclusion

6 Notation

This section provides a concise reference describing notation as used in the book by Goodfellow et al. (2016). If you are unfamiliar with any of the corresponding mathematical concepts, Goodfellow et al. (2016) describe most of these ideas in chapters 2–4.

Numbers and Arrays

a	A scalar (integer or real)
\mathbf{a}	A vector
\mathbf{A}	A matrix
\mathbf{A}	A tensor
\mathbf{I}_n	Identity matrix with n rows and n columns
\mathbf{I}	Identity matrix with dimensionality implied by context
$\mathbf{e}^{(i)}$	Standard basis vector $[0, \dots, 0, 1, 0, \dots, 0]$ with a 1 at position i
$\text{diag}(\mathbf{a})$	A square, diagonal matrix with diagonal entries given by \mathbf{a}
a	A scalar random variable
\mathbf{a}	A vector-valued random variable
\mathbf{A}	A matrix-valued random variable

References

Any choice of citation style is acceptable as long as you are consistent. It is permissible to reduce the font size to small (9 point) when listing the references. Note that the Reference section does not count towards the page limit.

References

I. Goodfellow, Y. Bengio, A. Courville, and Y. Bengio. *Deep learning*, volume 1. MIT Press, 2016.

Declaration of Authorship

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Declaration of Authorship

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Bamberg, July 16, 2025

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A Appendix

Optionally include extra information (complete proofs, additional experiments and plots) in the appendix. This section will often be part of the supplemental material.