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Framework for Artificial Intelligence (AI) Systems Using Machine Learning (ML)

*Cadre méthodologique pour les systèmes d'intelligence artificielle (IA)
utilisant l'apprentissage machine*



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Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
3.1 Model development and use.....	1
3.2 Tools.....	2
3.3 Data.....	2
4 Abbreviated terms	3
5 Overview	4
6 Machine learning system	4
6.1 Overview.....	4
6.2 Task.....	5
6.2.1 General.....	5
6.2.2 Regression.....	6
6.2.3 Classification.....	6
6.2.4 Clustering.....	6
6.2.5 Anomaly detection.....	6
6.2.6 Dimensionality reduction.....	7
6.2.7 Other tasks.....	7
6.3 Model.....	7
6.4 Data.....	8
6.5 Tools.....	9
6.5.1 General.....	9
6.5.2 Data preparation.....	9
6.5.3 Categories of ML algorithms.....	10
6.5.4 ML optimisation methods.....	14
6.5.5 ML evaluation metrics.....	16
7 Machine learning approaches	19
7.1 General.....	19
7.2 Supervised machine learning.....	20
7.3 Unsupervised machine learning.....	22
7.4 Semi-supervised machine learning.....	23
7.5 Self-supervised machine learning.....	23
7.6 Reinforcement machine learning.....	23
7.7 Transfer learning.....	24
8 Machine learning pipeline	25
8.1 General.....	25
8.2 Data acquisition.....	26
8.3 Data preparation.....	27
8.4 Modelling.....	28
8.5 Verification and validation.....	30
8.6 Model deployment.....	30
8.7 Operation.....	30
8.8 Example machine learning process based on ML pipeline.....	31
Annex A (informative) Example data flow and data use statements for supervised learning process	34
Bibliography	36

Foreword

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Introduction

Artificial intelligence (AI) systems, in general, are engineered systems that generate outputs such as content, forecasts, recommendations or decisions for a given set of human-defined objectives. AI covers a wide range of technologies that reflect different approaches to dealing with these complex problems.

ML is a branch of AI that employs computational techniques to enable systems to learn from data or experiences. In other words, ML systems are developed through the optimisation of algorithms to fit to training data, or improve their performance based through maximizing a reward. ML methods include deep learning, which is also addressed in this document.

Terms such as knowledge, learning and decisions are used throughout the document. However, it is not the intent to anthropomorphize machine learning (ML).

This document aims to provide a framework for the description of AI systems that use ML. By establishing a common terminology and a common set of concepts for such systems, this document provides a basis for the clear explanation of the systems and various considerations that apply to their engineering and to their use. This document is intended for a wide audience including experts and non-practitioners. However, some of the clauses (identified in the overview in [Clause 5](#)), include more in-depth technical descriptions.

This document also provides the basis for other standards directed at specific aspects of ML systems and their components.