

# The **A'**alto

## Dictionary of Machine Learning

### Course Edition CS-E4740 Federated Learning

Alexander Jung<sup>1</sup>, Konstantina Olioumtsevits<sup>1</sup>, Ekkehard Schnoor<sup>1</sup>,  
Tommi Flores Ryyänänen<sup>1</sup>, Juliette Gronier<sup>2</sup>, Salvatore Rastelli<sup>1</sup>, and  
Mikko Seesto<sup>1</sup>

<sup>1</sup>Aalto University    <sup>2</sup>ENS Lyon

February 6, 2026



please cite as: A. Jung, K. Olioumtsevits, E. Schnoor, T.  
Ryyänänen, J. Gronier, S. Rastelli, and M. Seesto, *The Aalto*  
*Dictionary of Machine Learning*. Espoo, Finland: Aalto  
University, 2026.

**Aalto University publication series**

Science, Technology 1/2026

ISBN 978-952-64-3014-0 (paperback)

ISBN 978-952-64-3013-3 (pdf)

ISSN 1799-4896 (print)

ISSN 1799-490X (pdf)

<https://urn.fi/URN:ISBN:978-952-64-3013-3>

PunaMusta Oy

2026

## Acknowledgment

This dictionary of machine learning evolved through the development and teaching of several courses, including CS-E3210 Machine Learning: Basic Principles, CS-C3240 Machine Learning, CS-E4800 Artificial Intelligence, CS-EJ3211 Machine Learning with Python, CS-EJ3311 Deep Learning with Python, CS-E4740 Federated Learning, and CS-E407507 Human-Centered Machine Learning. These courses were offered at Aalto University <https://www.aalto.fi/en>, to adult learners via The Finnish Institute of Technology (FITech) <https://fitech.io/en/>, and to international students through the European University Alliance Unite! <https://www.aalto.fi/en/unite>. We are grateful to the students who provided valuable feedback that helped to shape this dictionary.

This work was supported by

- the Research Council of Finland (grants 331197, 363624, 349966);
- the European Union (grant 952410);
- the Jane and Aatos Erkko Foundation (grant A835);
- Business Finland, as part of the project Forward-Looking AI Governance in Banking and Insurance (FLAIG).