Towards Scalable, Efficient and Privacy Preserving Machine Learning
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Context and Motivation

Objective

- Minimize the computational costs incurred by privacy preservation.
- Provide an end-to-end privacy preserving outsourced data classification service.
- Enable a set of mutually untrusted data owners to have a global vision on the union of their data without breaching the privacy of each one of them.
- Enable dynamic data model updates when new training data samples are available.

Related work

Different ML algorithms

Different Privacy-preservation objectives

Privacy Preservation techniques

References

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7. M. Domingo et al.: Mining high speed data streams. ICDE 2000:71-80
8. R. Bost et al.: Machine Learning Classification over Encrypted Data. NDS' 2015