

January 4, 2024

Journal of Machine Learning Research  
Machine Learning Open Source Software

Dear Editors,

I hereby submit QIDLEARNINGLIB for consideration in the Machine Learning Open Source Software section of the Journal of Machine Learning Research. Developed within the scope of my Master's thesis in Intelligent Systems at the University of Coimbra, this library focuses on automating the learning of quasi-identifiers using deep learning and causality techniques.

While currently in its initial version, QIDLEARNINGLIB is an ongoing project slated for continuous development throughout my thesis research and beyond. Serving as a foundational resource, the library provides essential metrics for automating the identification of quasi-identifiers, specifically tailored for data privacy applications.

The framework integrates specialized measures for quasi-identifier detection, expanding the conventional boundaries of metric evaluation. QIDLEARNINGLIB equips users with tools to assess data privacy, evaluate data utility, explore causality, and measure the performance of quasi-identification recognition algorithms.

In the context of data privacy, automated quasi-identifier detection is crucial to prevent linkage attacks and enhance the security of sensitive information. Leveraging machine learning and statistical techniques, QIDLEARNINGLIB contributes to the identification and assessment of quasi-identifiers, offering a set of metrics for integration into machine learning architectures to classify quasi-identifiers within datasets.

This submission represents a significant contribution to the open-source community, enabling rigorous evaluation and benchmarking in machine learning. I am confident that QIDLEARNINGLIB, with its innovative approach and focus on addressing critical privacy challenges, aligns seamlessly with the Journal of Machine Learning Research's mission to advance the understanding and practice of machine learning. I eagerly anticipate feedback from the esteemed editorial board and potential users.

As part of the submission process for QIDLEARNINGLIB to the Machine Learning Open Source Software section of the Journal of Machine Learning Research, I would like to provide the requested information for your consideration, which is presented below.

#### Author Information:

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- **Program:** Master's in Informatics Engineering - Intelligent Systems - Thesis Dissertation

#### Software Details:

- **License:** Released under the terms of the GNU General Public License, version 3 (GPL-3.0).
- **Web Address:** <https://github.com/smartlord7/QIDLearningLib.git>
- **Active User Community:** [Briefly mention evidence of an active user community, if applicable]
- **Version of Software:** v0.01

**Reviewers Suggestion:** I would like to suggest the following potential reviewers for the review of QIDLEARNINGLIB. These individuals have expertise in the field and their insights would greatly contribute to the evaluation of the software:

1. Professor Pedro Manuel Henriques da Cunha Abreu - [Brief explanation of relevance]
2. Professor João Paulo da Silva Machado Garcia Vilela - [Brief explanation of relevance]

Thank you for considering my submission. I am looking forward to the opportunity for QIDLEARN-INGLIB to be reviewed and potentially included in the Machine Learning Open Source Software section of the Journal of Machine Learning Research.

Sincerely,  
Sancho Amaral Simões