

DATASETS AND TOOLS

This section presents the list of the available datasets and the tools proposed in the reviewed literature. For more details of the datasets and the tools, we refer the reader to the original works as summarized Table 1 and Table 2 respectively.

Table 1: The list of publicly available datasets

Source	Dataset Description	Link
Krasniqi & Cleland-Huang (2020)	Refactoring detection from commit messages.	https://zenodo.org/record/3596397
Hegedűs et al. (2018)	Refactoring datasets mined from version history.	http://www.inf.u-szeged.hu/~ferenc/papers/RefactDataSet
Silva & Valente (2017b)	Refactorings mined from commit history.	https://github.com/aserg-ufmg/RefDiff
Silva et al. (2016)	Refactoring motivations.	http://aserg-ufmg.github.io/why-we-refactor
Nyamawe et al. (2020)	Refactorings mapped to feature requests and code smells.	https://github.com/nyamawe/FR-Refactor
Nyamawe et al. (2019)	Refactorings mapped to feature requests.	http://doi.org/10.5281/zenodo.3335978
Rebai et al. (2020)	Refactorings mapped to commits.	https://sites.google.com/view/istrefcom/data
Wen et al. (2022)	Quick remedy commits.	https://github.com/USI-INF-Software/EMSE-ICPC2020-quick-remedy-commit
Sagar et al. (2021)	Refactorings Prediction	https://github.com/smilevo/refactoring-metricsprediction

Table 2: The list of tools proposed in the reviewed papers

Tool	Task Description
RefDiff (Silva & Valente, 2017) RefactoringMiner (Silva et al., 2016) RMiner (Tsantalis et al., 2018) RefactoringCrawler (Dig et al., 2006) Ref-Finder (Prete et al., 2010)	Identification of refactorings applied between two source code revisions/version histories. Most of these tools were run as plugins in Eclipse.
JDeodorant (Fokaefs et al., 2007) DÉCOR (Moha et al., 2010)	Detection of code smells.
HIST (Palomba et al., 2013, 2015)	Detection of code smells based on change history information.
SACSEA (Peters & Zaidman, 2012)	Investigating the lifespan of code smells.
WEKA (Ratzinger et al., 2007b)	Data mining.
ROSE (Zimmermann et al., 2004)	Guiding software changes.
SAFEREFACITOR (Soares et al., 2011)	Transformations analysis.
Candoia (Tiwari et al., 2017)	Building and sharing MSR tools.
MORE (Ouni et al., 2017) RefCom (Rebai et al., 2020) FR-Refactor (Nyamawe et al., 2019, 2020)	Refactoring recommendation.
CMMiner (Krasniqi & Cleland-Huang, 2020)	Refactoring detection.