Data Collection

Engineered open-source projects

800 random Java projects

GitHub

Clone projects & extract commits data

Refactoring Detection

Refactoring Miner

List of refactorings

- Move class x to y
- Extract method a from b
- ....

Commit Classification

Data Preparation

Text Preprocessing

Feature Extraction
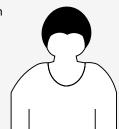
Model Training

Model Evaluation

Manual Analysis

Developer Perception of Refactoring
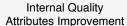
Bug Fixing

Feature Addition Modification

Code Smell Resolution

Internal Quality Attributes Improvement

External Quality Attributes Improvement