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| --- | --- | --- | --- | --- | --- | --- |
|  | Confix | Simfix | FixMiner | AvaTAR | Capgen | TBAR |
| Fix pattern mining. |  |  | 11416 patches user reported bugs in 43 open source projects. | Extracted Static analysis tool  Manual design and automatic mining.  Clustering is performed based on the X-means algorithm. | 3000 rer fixing patches over 700 open source projects. (highest frequencies for replacement insertion and deletion top 10) |  |
| Fix pattern |  |  |  | 13 | 30 |  |
| Pattern matching |  |  |  |  |  |  |
| Pattern prioritization |  |  |  |  |  |  |
| Context information | O | O | O |  | O |  |
| Ingredients prioritizations. |  |  |  |  | Three similarity |  |
| Partially fixed(may plausible patch) |  |  |  |  |  |  |