

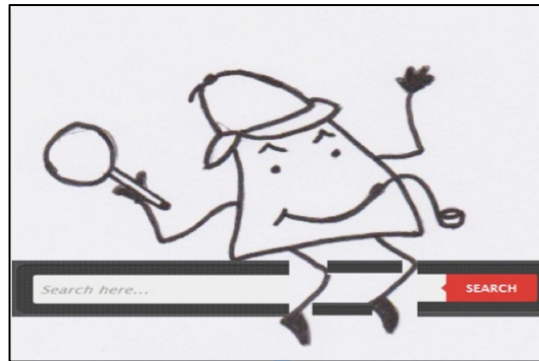
Radically speed up developers in finding software errors

70 % hit rate under the top 5 search results!

Large part of software development is fixing errors, to **improve software quality and customer satisfaction**. Developers spent 60-80% of their time on searching for relevant code files to fix.

In the context of doctoral research at the Open University in London, we invented a **completely new search algorithm**. It suggests the likely files to fix an error with **enormous efficiency**, leading to:

- **reduced time and cost to correct errors**, by automatically adding the suggestions to the error report;
- **build confidence and improve productivity** of new or outsourced staff not familiar with the codebase



Pillar-1 classes affected by BR # 2093
QuotaShareContractStrategy.java
EventAalLimitStrategy.java
EventLimitStrategy.java
ILimitStrategy.java
NoneLimitStrategy.java
LimitStrategyType.groovy

Find potential classes affected by a given bug

Our approach is **fast, light-weight and simple** and yet **outperforms** other approaches by listing at least one faulty file among the top 10 suggested.

Average hit rates:

- 1 out 1: 44%
- 1 out of 5: 69%
- 1 out of 10: 76%

We are looking for **industrial and academic collaboration partners**.

- Our tool is ready for industrial code.
- Extendable to other programming languages, besides Java.
- Enabled for professional workflows and tools, e.g. bug tracking systems, continuous integration tools, IDEs.