

Secret Breach Detection in Issue Reports

Suppose there is an individual, Mr. X, who uses GitHub. One day, he posts an issue report stating: ***"I am having trouble with my database connection. Here is the connection string I am using: postgres://username:password***

@localhost:5432/mydatabase." This is an example of a secret breach in an issue report. Despite the availability of tools to detect such breaches in source code, detecting secret breaches (sensitive information like API keys and passwords) in software issue reports on code-sharing platforms like GitHub remains largely unexplored. To address this issue, we have developed a browser extension. Our extension uses a language model approach to identify if the reports contain secrets and notifies the user accordingly.

You will be given 10 issue reports in the following 10 questions, which may or may not contain secrets.

For the first 5 issue reports, check for secrets without using our extension, remove if any exists, submit the report and then mark your confidence level on detecting secrets in the google form. If you are confident that the reports don't contain secret, then post them as it is. Otherwise, please remove the sensitive information and post them as new issues in the repository https://github.com/sbm-eval/Secret_Breach-Survey and answer the following questions.

Thank you for your participation.

* Indicates required question

1. Email *

2. Please provide your Github username *

3. How confident are you about not posting secret in [Issue Report 1](#) ? *

Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. How confident are you about not posting secret in [Issue Report 2](#) ? *

Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. How confident are you about not posting secret in [Issue Report 3](#) ? *

Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. How confident are you about not posting secret in [Issue Report 4](#) ? *

Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. How confident are you about not posting secret in [Issue Report 5](#) ? *

Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Secret Breach Detection with Extension

Now, install the extension on your browser , which can be downloaded from [this link](#) . If you find that the reports contain secrets, please remove the sensitive information and post them as new issues in the following repository https://github.com/sbm-eval/Secret_Breach-Survey . Finally, answer the following questions and mark your confidence level on detecting secrets in the google form .

[Here](#) is a demonstration video about how to install and use our extension. You can find possible strings containing secrets by hovering over the icon.

N.B - Third party dark mode extensions might interfere with the extension's ui. Hence it is recommended to turn any third party dark mode extensions before using the extension.

8. How confident are you about not posting secret in [Issue Report 6](#)? *

Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. How confident are you about not posting secret in [Issue Report 7](#) ? *

Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. How confident are you about not posting secret in [Issue Report 8](#)? *

Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. How confident are you about not posting secret in [Issue Report 9](#) ? *

Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. How confident are you about not posting secret in [Issue Report 10](#)? *

Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Feedback Section

13. How likely is our bot able to identify secrets in issue reports? *

Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. How do you perceive of the necessity of warning tools like our bot to prevent secret breach?

15. What are the future improvement opportunities of our bot? *

16. What are the other tool supports that you might need to assist you in issue report management while ensuring security?

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Google Forms

