

CipherEvolve User Guide

Welcome to **CipherEvolve**, your go-to cryptographic security scanner! This guide will help you navigate the application and understand its features.

What is CipherEvolve?

CipherEvolve scans your source code to detect potential cryptographic vulnerabilities. It helps you ensure secure encryption practices and avoid weak algorithms.

Getting Started

Installation

1. Ensure you have **Python 3.x** installed.
2. Install dependencies with:

```
pip install pillow tkinterweb matplotlib
```

3. Run the application:

```
python GUI.py
```

Application Interface

Scanning a Folder

1. Enter the **folder path** in the input field.
2. Click **Scan New Folder**.
3. The application will analyze files and display results.



Searching for a File

1. Enter a filename in the **Search Filename** box.
2. Click **Search** to filter results.



Understanding the Scan Results

- **Filename:** Name of the scanned file.
 - **Language:** Programming language detected.
 - **Line Number:** Line where the issue is found.
 - **Vulnerable Code:** Code snippet with potential security risks.
 - **Risk Level:** Severity rating (High, Medium, Low, Secure).
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Risk Levels Explained

- **High:** Outdated or weak encryption (e.g., MD5, SHA-1, RSA-1024).
 - **Medium:** Acceptable but not recommended (e.g., AES-ECB, 3DES).
 - **Low:** Mostly secure but could be improved (e.g., AES-128).
 - **Secure:** Best cryptographic practices (e.g., AES-256, RSA-2048).
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Managing Scan Results

- **Refresh Results:** Updates the results table.
 - **Help:** Opens this user guide.
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Troubleshooting

Issue	Solution
Application won't start	Check that Python and dependencies are installed.
No results after scanning	Ensure the folder contains valid source code files.
