

Re-dact

Table of Contents

1. Introduction
 2. Installation and Setup
 3. User Interface Overview
 4. Core Features and Usage
 - Sensitive Data Detection
 - Redaction Levels
 - Multi-Format Support
 - Customizable Redaction Rules
 5. Batch Processing and CLI
 6. Synthetic Data Generation
 7. Security and Encryption
 8. Troubleshooting
 9. FAQs
 10. Contact and Support
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1. Introduction

Welcome to RE-DACT!

RE-DACT is a secure, customizable tool for redacting sensitive data in various formats. It leverages advanced natural language processing (NLP) and machine learning techniques to provide accurate and scalable redaction options. Whether for legal, medical, or personal use, RE-DACT ensures compliance with privacy standards and offers a flexible gradational redaction scale.

Key Features:

- Automatic sensitive data detection.
 - Customizable redaction levels (full, anonymized, masked).
 - Multi-format support (text, PDF, images, etc.).
 - Offline functionality for enhanced data security.
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2. Installation and Setup

System Requirements

- Operating System: Windows 10/11, macOS 10.15 or later, Linux (Ubuntu 20.04+).
- RAM: Minimum 4GB (8GB recommended).
- Disk Space: 500MB for installation; additional space for processed files.
- Python 3.8+ (for CLI version).

Installation Steps

CLI Setup (Optional):

1. Install via pip: `pip install requirements.txt`
 2. Verify installation: Run `redact --version` in the terminal.
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3. User Interface Overview

Dashboard:

The dashboard provides an overview of the tool's features:

- **Upload Section:** Drag and drop files for processing.
- **Settings Panel:** Customize redaction levels and rules.
- **Preview Area:** View original and redacted files side by side.

Navigation Bar:

- **Home:** Return to the dashboard.
 - **Settings:** Manage global preferences (e.g., default redaction level).
 - **Help:** Access tutorials and support.
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4. Core Features and Usage

Sensitive Data Detection

1. Upload a file using the drag-and-drop feature or select from your device.
2. Choose the detection type (e.g., names, addresses, medical terms).
3. Click "redact" to detect sensitive data. redacted items are highlighted in the preview area.

Redaction Levels

- **Full Redaction:** Completely removes sensitive data.
- **Anonymization:** Replaces sensitive data with placeholders.
- **Masking:** Partially obscures sensitive data (e.g., xxxx-xxxx-5678).

Steps to Apply Redaction:

1. Choose the desired redaction level from the dropdown menu.

2. Review the preview to ensure accuracy.
3. Click “Redaction” to finalize changes.

Multi-Format Support

- Supported formats: .txt, .docx, .pdf, .png, .jpg.
- For PDFs and images, the tool uses OCR to detect and redact text.

Customizable Redaction Rules

- Access the settings panel and navigate to “Custom Rules.”
 - Add keywords, patterns (e.g., regex), or exceptions.
 - Save rules for future use.
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6. Synthetic Data Generation

- Enable synthetic data replacement in the settings panel.
 - Choose data types to replace (e.g., names, addresses).
 - Generated data maintains logical consistency with the context.
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7. Security and Encryption

Data Security Features:

- All files are processed in-memory to avoid disk writes.
- End-to-end AES-256 encryption for sensitive data.
- Offline mode ensures no data is transmitted externally.

Best Practices:

- Always process files in offline mode for maximum security.
 - Delete original files after successful redaction.
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8. Troubleshooting

Issue	Solution
File format not supported	Convert file to a supported format.
Redacted output is inconsistent	Review custom rules and adjust settings.
Slow processing for large files	Ensure sufficient RAM and disk space.
CLI command not recognized	Verify Python installation and PATH setup.

9. FAQs

Q: Can I recover original data after redaction? **A:** No, redaction is irreversible to ensure data security.

Q: Does the tool support multilingual redaction? **A:** Yes, it supports multiple languages for text and PDFs.

Q: Is the tool compliant with GDPR and HIPAA? **A:** Yes, RE-DACT is designed to meet major privacy regulations.

10. Contact and Support

For further assistance:

Email: sihredact@gmail.com

Thank you for choosing RE-DACT! Your privacy is our priority.