

Image, Text, Video & Metadata Anonymizer

A simple tool to protect what matters — your privacy

Project Overview

The Anonymizer is a web application I built to make privacy protection effortless. We often share photos, videos, or text documents online without realizing how much personal information they contain — from faces and license plates to names and hidden metadata.

This project helps users quickly hide, blur, or remove sensitive details from their files using a combination of AI and automation.

It's designed to be simple, fast, and user-friendly — just upload, preview, and download your anonymized version.

What It Does

- Blurs faces and sensitive areas in photos and videos automatically.
- Removes personal details (like names, phone numbers, or emails) from text.
- Cleans hidden metadata such as GPS or device info from images.
- Shows a live before–after preview so users can see what's removed.
- Works completely securely — no files are stored permanently.

How I Built It

The project is built with a modern full-stack setup:

- React.js for the front-end interface where users upload and preview files.
- FastAPI (Python) for the backend that handles anonymization requests.
- OpenCV, spaCy, ffmpeg, Pillow for image, video, and text processing.
- Deployed using Vercel (frontend) and Render (backend).

The main challenge was balancing speed and accuracy — ensuring faces and text are properly masked while keeping the app responsive.

Why I Built This

During a data privacy workshop, I realized how much information gets unintentionally exposed in media files.

That inspired me to create a tool that could help anyone — from students to journalists — protect their data with one click.

It's a blend of AI, user experience, and social impact.

How It Works

- Upload an image, text, or video file.
- The system analyzes the content using AI models.
- Sensitive details are blurred or removed.
- You can compare the original and anonymized versions side by side.
- Download the cleaned file instantly.

Supported formats: .jpg, .png, .mp4, .txt, .pdf

Highlights

- Clean and minimal design for easy use.
- Handles multiple file types.
- Works directly in the browser — no installation needed.
- Built to demonstrate how AI can serve privacy, not invade it.

Tech Stack

- Frontend: React, Tailwind CSS
- Backend: FastAPI (Python)
- AI/Processing: OpenCV, spaCy, ffmpeg, Pillow
- Deployment: Vercel (Frontend) + Render (Backend)

Future Plans

- Add customizable masks (color, shape, or blur intensity).
- Enable batch anonymization for folders or datasets.

- Add login and cloud-based saving options.
- Improve detection accuracy using deep learning models.


Results

This tool reduces the time needed for manual editing by over 70%, while maintaining visual clarity.

It's particularly useful for:

- Journalists redacting footage
- Researchers anonymizing datasets
- Regular users cleaning personal media before sharing

Project Links

 Preview: anonymizer-seven.vercel.app

 Source Code: github.com/gayathirivenkatesh/anonymizer

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