Vision

Tags | Product

Team Name: CV goes frr

Project idea

Our team is going to develop CVIP - Computer Vision Image Processing tool.

CVIP will let users do CV things with their images and videos fast, easy and effective. It'll contain two parts:

- CLI for using basic commands for image and video processing.
- CV features.

For users the tool will be useful, maybe popular, but for sure it'll have a lot of ways to use.

Project goals

- Develop an easy-to-use program with a wide range of image and video processing capabilities available through the Command Line Interface (CLI).
- Gain a deep understanding of computer vision by dipping into the details of image and video processing algorithms
- Use advanced computer vision techniques to ease intelligent image improvement and processing.

Implementation

Command Line Interface

The CLI interface will serve as an entry point for users to use the features of the CVIP. It will have a user-friendly interface that will allow users to:

- Select input images and videos and define output paths for processed images.
- Implement a reliable command verification system to ensure correct interpretation and execution of user commands.
- Develop complex error handling mechanisms to provide clear feedback to users when problems arise.

Command list draft:

- Resize image
- Convert format
- Adjust image quality
- Crop image
- Rotate image
- Apply color correction
- Remove background
- Face detection and blurring
- Background replacement

CV features

- Object Recognition: Integrated object recognition algorithms for identifying and manipulating specific objects in images and videos.
- Image Recovery: Use image recovery algorithms that allow users to restore old or damaged photos.

As the project progresses, we will continue to improve these ideas, collaborate with experts in this field, so that our CVIP library becomes an irreplaceable tool for both image and video processing enthusiasts and professionals.

Authors:

- Kotenkov Maxim
- Makanin Kirill
- Yakovleva Valeria.