



Border Trimmer

imgix interview – image processing engineer
take home project

Yan Jiao

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Border Property

(in this project)

Known RGB, single color
(Suppose the top-left pixel is in border area)

Unknown widths

Perfectly row/column aligned

(might not consider the variance in alpha channel)

Overall Idea



Get real file type image, PNG,
JPEG or WebP



Read image to OpenCV Mat
Set channels
Get Mat type



Write trimmed image to a new Mat and
save image file



Detect 4 borders position.
(If border has noise -> need denoise process.
For this project, the border is pure color.)



Get Real File Type Image

True image file type
may not be consistent
with the file extension

Use “libmagic” to get
the MIME type of the
image file

This project covers:

image/png

image/jpeg

image/webp



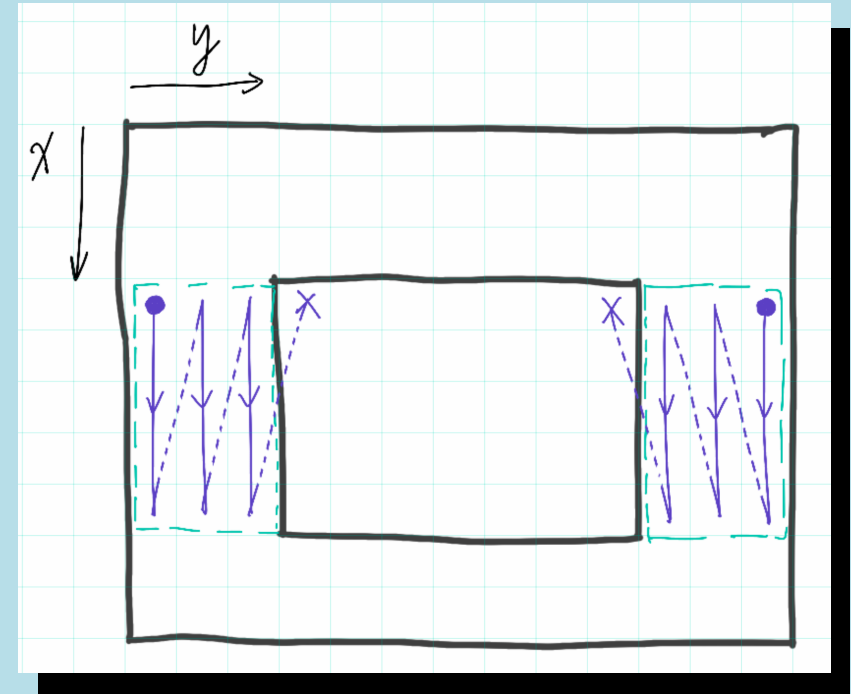
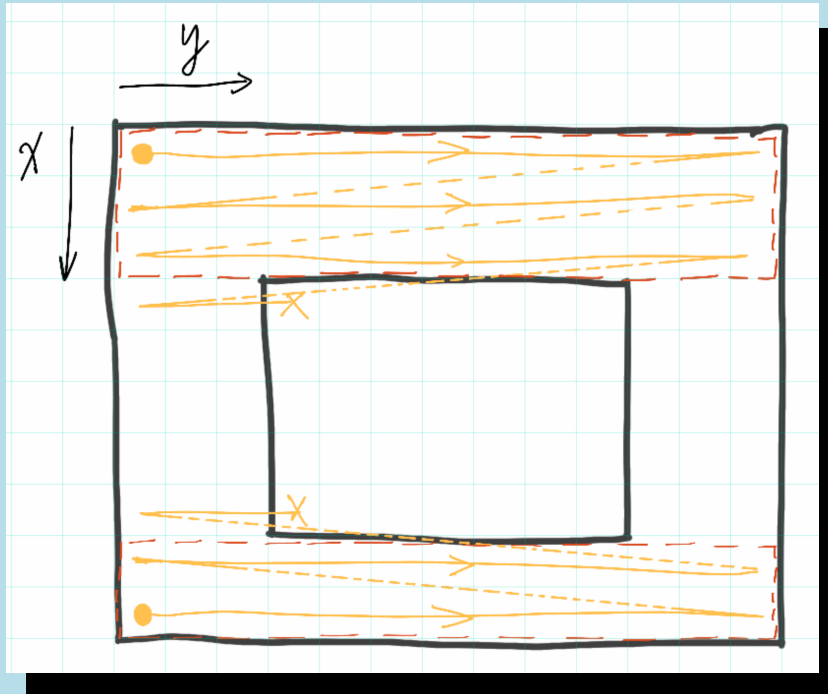
Read Image

Use OpenCV `cv::imread()`
to read image BGR data
to `cv::Mat`

Use `cv::Mat::type()`
get color depth and
channels



Detect Border Position





Write Trimmed Image

Copy data in ROI to
new `cv::Mat`

Write output image
`cv::imwrite()`



Thank You!