Book Cover Recognition

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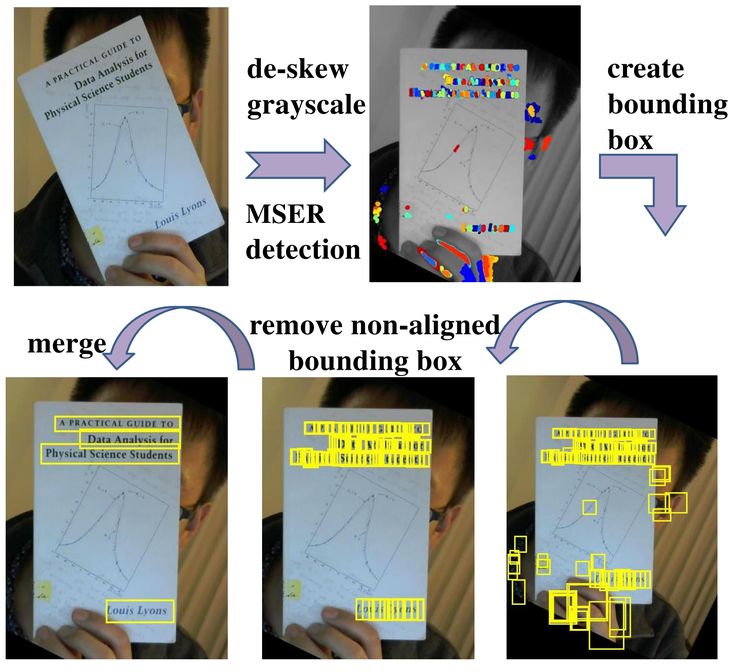
Motivation

When visiting bookstores, people always want to find more details about the book they are interested. Generally, we want to know more comments on that book, we may also want to compare the prices for the same book from online stores. Therefore, the goal of our project is to provide readers with more book information by just taking photos of the book cover. In this way, people can make better decisions on taking books in the bookstore.

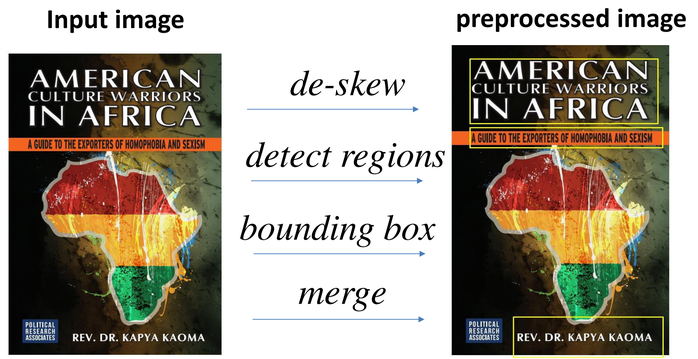
Preprocessing

- Some limitations of digital camera like geometrical distortions will influence the performances of OCR, hence we need image preprocessing



Overview of Algorithms

Step 1: Image Preprocessing



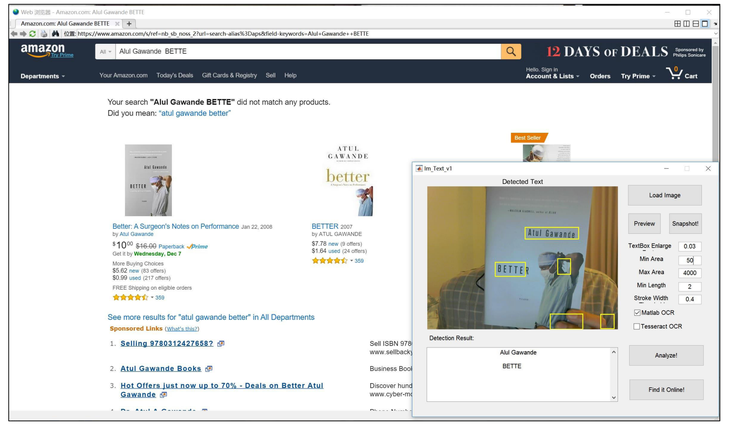
Step 2: Character Recognition

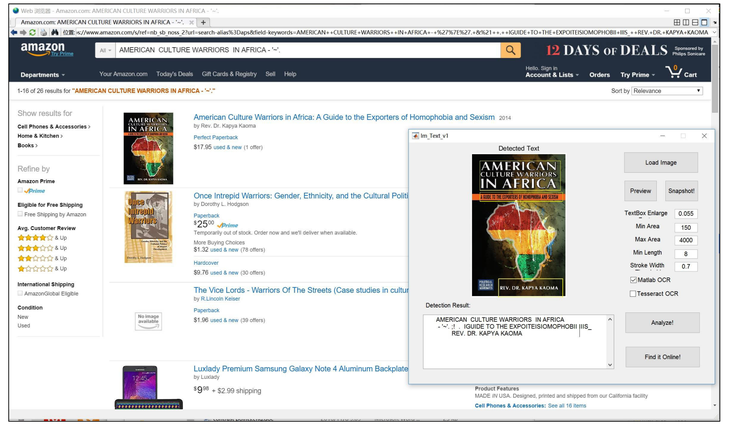
Matlab OCR *VS* Tesserate OCR

Step 3: Typo Correction
Step 4: Online Price Search

Use text information as keywords → amazon.com

Results





Reference

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[2].Bay, Herbert, et al. ”Speeded-up robust features (SURF).” Computer vision and im- age understanding 110.3 (2008): 346-359.
[3].Iwata, Kenji, et al. ”Book cover identification by using four directional features field for a small-scale library system.” Document Analysis and Recognition, 2001. Proceedings. Sixth International Conference on. IEEE, 2001.