

# OCR System

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October 2, 2017

One of the oldest and most practical applications of computer vision is Optical Character Recognition, or OCR. An OCR system takes as its input an image of (potentially structured) text and outputs an editable text document. In other words, it converts an *image* of text into text. This is useful for turning scans of books and documents into searchable, digital representations.

In this project, your task is to build a simple OCR system. You can limit yourself to a well-defined input class, e.g. scans of typed and printed documents, or your own handwriting. Real-world OCR systems often work for imperfect scans, handwriting as well as typed documents, etc., but to limit the scope of your project, simplify the input type.

It should be easy to generate your own training data. You may want to play around with different approaches—can you train a neural network on the raw images? Or do you need to use some kind of hybrid approach?

Try to focus on accurately recovering the text from the document—at first, you don't need to worry about reproducing things like paragraph structure, though feel free to do so. Your final product should be a working end-to-end OCR system that goes from a “nice” class of scanned images to text. Describe your approach, the challenges faced in building this system, and the assumptions you made along the way.