Towards Semantically Aware Word Cloud Shape Generation

K. J. Kevin Feng*, Alice Gao*, Johanna S. Karras*

University of Washington

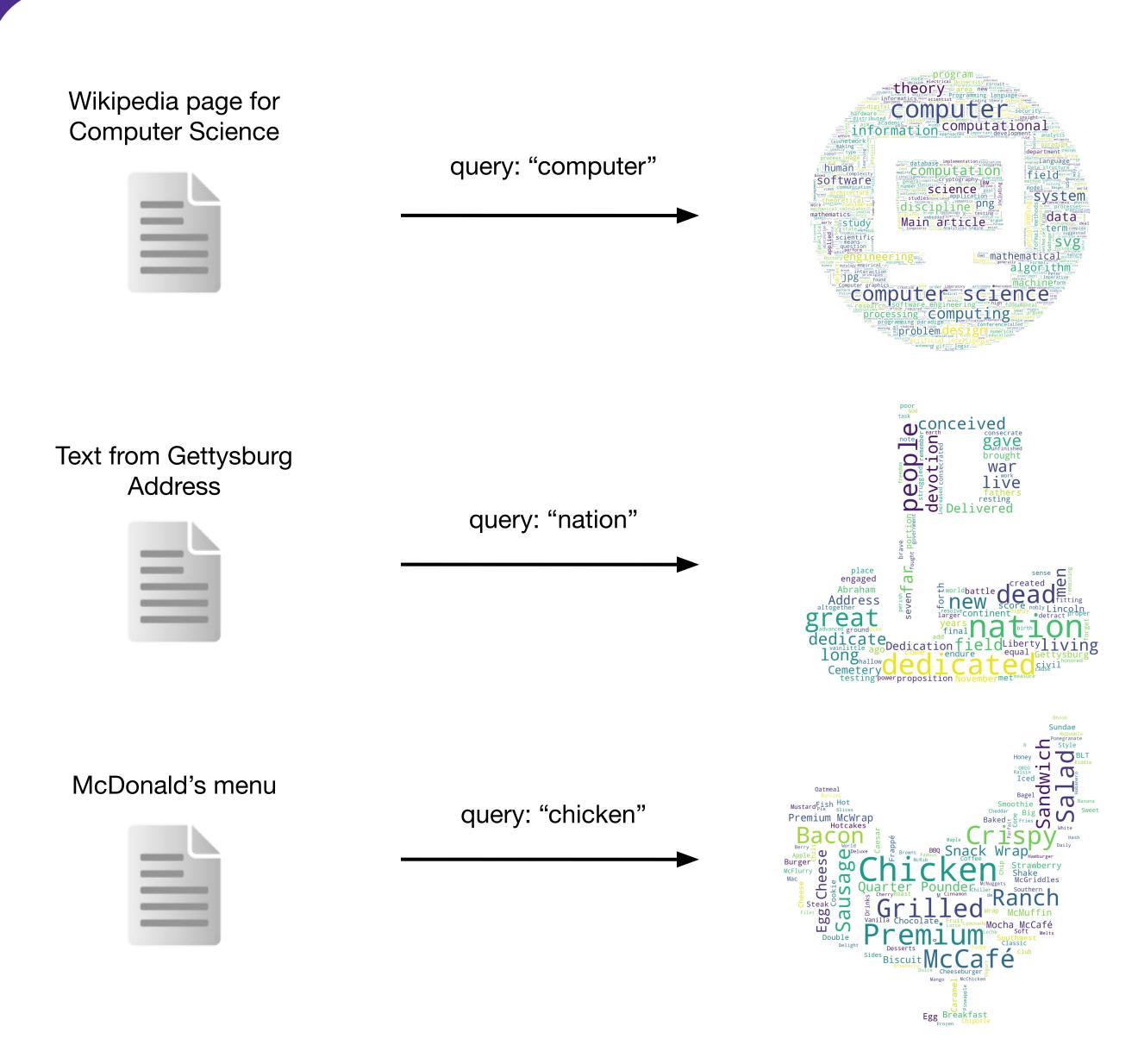
Motivation



Word clouds are useful tools for quickly interpreting and comparing text documents.

Can we make word clouds more effective by automatically generating a word cloud in the shape of a key idea or theme from the text?

Results

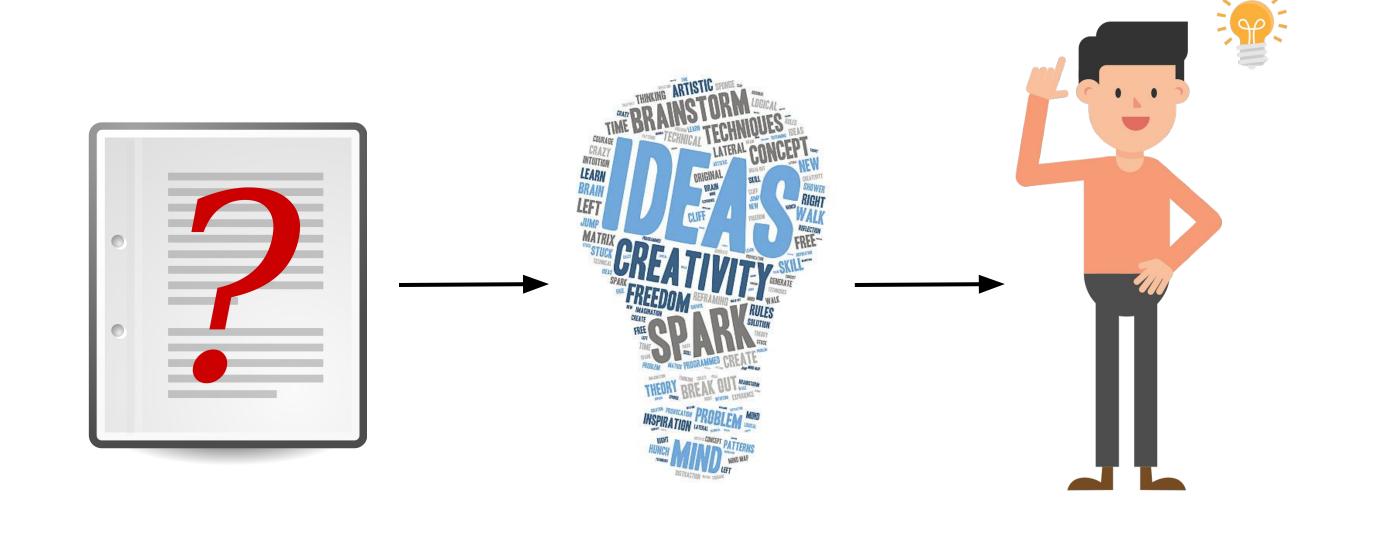


Future work: varying colour based on colour of mask or text characteristic (e.g. sentiment).

Design Goals

Our improved word clouds...

- Convey the main topic of the text via shape
- Emphasize key words using font size
- Are automatically generated, requiring minimum human effort



Approach

Given a text document, our pipeline automatically

- (1) identifies its topic and converts it into a search query,
- (2) searches for an image matching the query,
- (3) generates shape mask from the image, and
- (4) generates a shaped word cloud.

