

# Computing Edit Distance

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## Abstract

The edit distance (or Levenshtein distance) between two strings  $x, y$  is the minimum number of character insertions, deletions, and substitutions needed to convert  $x$  into  $y$ . It has numerous applications in various fields from text processing to bioinformatics so algorithms for edit distance computation attract lot of attention. In this talk I will survey recent progress on computational aspects of edit distance in several contexts: computing edit distance approximately, sketching and computing it in streaming model, exchanging strings in communication complexity model, and building error correcting codes for edit distance. I will point out many problems that are still open in those areas.

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