

# Understanding and Evaluating Medical Concept Embeddings

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Word embeddings, also known as distributed representations, have seen rapid adoption in natural language processing (NLP). Though they are now standard practice in many areas of NLP and machine learning, they are just now beginning to attract interest in biomedical informatics. In this article, we present an overview of the existing word embedding methodology and its applicability to biomedical informatics, as well as proposing a set of benchmark for medical concept embedding evaluation. We provide these benchmarks as an R package to the community to encourage quick and easy comparison for new embeddings in the future.

*Keywords:* Machine Learning; Distributed Representations; Word Vectors; Concept Embeddings

## 1. Introduction

Here is where we will motivate the paper and introduce the key ideas

## 2. Overview of Word Embeddings

Here is where I will put the overview of existing methodology.

## 3. Benchmarks

Here is where we will put the description of all of the benchmarks, put in `\subsection{}` tags

## 4. Results

You can obtain these files from the following website: [http://www.wspc.com.sg/style/proceedings\\_style.shtml](http://www.wspc.com.sg/style/proceedings_style.shtml).

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\bibitem{jarl88} C. Jarlskog, in {\it CP Violation} (World Scientific,
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\bibitem{lamp94} L. Lamport, {\it \LaTeX, A Document Preparation System},
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\bibitem{ams04} \AmS-\LaTeX{} Version 2 User's Guide (American Mathematical
    Society, Providence, 2004).

\bibitem{best03} B.~W. Bestbury, {\em J. Phys. A} {\bf 36}, 1947 (2003).

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series	... text. <sup>?</sup>
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unpublished	... text. <sup>?</sup>
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