

# Abstract generation of research articles with extractive summarisation

Anonymous ACL submission

## Abstract

This project aims at developing a tool to generate an abstract automatically based on the main text of a research manuscript. To this end, extractive summarisation is employed. The motivation behind choosing extractive summarisation is, in essence, the necessity to preserve the meaning of the key sentences from the main text. Extractive summarisation will retrieve sentences based on their importance without rephrasing them, thereby excluding misinterpretations. This is crucial for scientific texts. Blablabla dataset was used. Two algorithms were chosen to implement this task: gensim as a baseline and pretrained transformer. Their performance was assessed using X and Y metrics. The obtained results show that Y better suits for the considered task.

## 1 Introduction

These instructions are for authors submitting papers to ACL 2023 using L<sup>A</sup>T<sub>E</sub>X. They are not self-contained. All authors must follow the general instructions for \*ACL proceedings,<sup>1</sup> as well as guidelines set forth in the ACL 2023 call for papers.<sup>2</sup> This document contains additional instructions for the L<sup>A</sup>T<sub>E</sub>X style files. The templates include the L<sup>A</sup>T<sub>E</sub>X source of this document (acl2023.tex), the L<sup>A</sup>T<sub>E</sub>X style file used to format it (acl2023.sty), an ACL bibliography style (acl\_natbib.bst), an example bibliography (custom.bib), and the bibliography for the ACL Anthology (anthology.bib).

## 2 Engines

To produce a PDF file, pdfL<sup>A</sup>T<sub>E</sub>X is strongly recommended (over original L<sup>A</sup>T<sub>E</sub>X plus dvips+ps2pdf or dvi2pdf). XeL<sup>A</sup>T<sub>E</sub>X also produces PDF files, and is especially suitable for text in non-Latin scripts.

<sup>1</sup><http://acl-org.github.io/ACL2023/formatting.html>

<sup>2</sup>[https://2023.aclweb.org/calls/main\\_conference/](https://2023.aclweb.org/calls/main_conference/)

Command	Output	Command	Output
<code>{\ "a}</code>	ä	<code>{\c c}</code>	ç
<code>{\ ^e}</code>	ê	<code>{\u g}</code>	ğ
<code>{\ `i}</code>	ì	<code>{\l}</code>	ł
<code>{\ .I}</code>	İ	<code>{\~n}</code>	ñ
<code>{\o}</code>	ø	<code>{\H o}</code>	ő
<code>{\ 'u}</code>	ú	<code>{\v r}</code>	ř
<code>{\aa}</code>	å	<code>{\ss}</code>	ß

Table 1: Example commands for accented characters, to be used in, e.g., BibT<sub>E</sub>X entries.

## 3 Preamble

The first line of the file must be

```
\documentclass[11pt]{article}
```

To load the style file in the review version:

```
\usepackage[review]{ACL2023}
```

For the final version, omit the review option:

```
\usepackage{ACL2023}
```

To use Times Roman, put the following in the preamble:

```
\usepackage{times}
```

(Alternatives like txfonts or newtx are also acceptable.) Please see the L<sup>A</sup>T<sub>E</sub>X source of this document for comments on other packages that may be useful. Set the title and author using `\title` and `\author`. Within the author list, format multiple authors using `\and` and `\And` and `\AND`; please see the L<sup>A</sup>T<sub>E</sub>X source for examples. By default, the box containing the title and author names is set to the minimum of 5 cm. If you need more space, include the following in the preamble:

```
\setlength\titlebox{<dim>}
```

where `<dim>` is replaced with a length. Do not set this length smaller than 5 cm.

Output	natbib command	Old ACL-style command
(Cooley and Tukey, 1965)	<code>\citep</code>	<code>\cite</code>
Cooley and Tukey, 1965	<code>\citealp</code>	no equivalent
Cooley and Tukey (1965)	<code>\citet</code>	<code>\newcite</code>
(1965)	<code>\citeyearpar</code>	<code>\shortcite</code>
Cooley and Tukey’s (1965)	<code>\citeposs</code>	no equivalent
(FFT; Cooley and Tukey, 1965)	<code>\citep[FFT;][]</code>	no equivalent

Table 2: Citation commands supported by the style file. The style is based on the natbib package and supports all natbib citation commands. It also supports commands defined in previous ACL style files for compatibility.

## 4 Document Body

`\bibliographystyle{acl_natbib}`

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### 4.1 Footnotes

`\bibliography{custom}`

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Footnotes are inserted with the `\footnote` command.<sup>3</sup>

You can obtain the complete ACL Anthology as a BibTeX file from <https://aclweb.org/anthology/anthology.bib.gz>. To include both the Anthology and your own .bib file, use the following instead of the above.

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### 4.2 Tables and figures

See Table 1 for an example of a table and its caption. **Do not override the default caption sizes.**

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### 4.3 Hyperlinks

`\bibliographystyle{acl_natbib}`

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`\bibliography{anthology,custom}`

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Users of older versions of L<sup>A</sup>T<sub>E</sub>X may encounter the following error during compilation:

Please see Section 5 for information on preparing BibTeX files.

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`\pdfendlink` ended up in different nesting level than `\pdfstartlink`.

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This happens when pdfL<sup>A</sup>T<sub>E</sub>X is used and a citation splits across a page boundary. The best way to fix this is to upgrade L<sup>A</sup>T<sub>E</sub>X to 2018-12-01 or later.

### 4.6 Appendices

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Use `\appendix` before any appendix section to switch the section numbering over to letters. See Appendix A for an example.

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### 4.4 Citations

Table 2 shows the syntax supported by the style files. We encourage you to use the natbib styles. You can use the command `\citet` (cite in text) to get “author (year)” citations, like this citation to a paper by Gusfield (1997). You can use the command `\citep` (cite in parentheses) to get “(author, year)” citations (Gusfield, 1997). You can use the command `\citealp` (alternative cite without parentheses) to get “author, year” citations, which is useful for using citations within parentheses (e.g. Gusfield, 1997).

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## 5 BibTeX Files

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Unicode cannot be used in BibTeX entries, and some ways of typing special characters can disrupt BibTeX’s alphabetization. The recommended way of typing special characters is shown in Table 1.

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Please ensure that BibTeX records contain DOIs or URLs when possible, and for all the ACL materials that you reference. Use the `doi` field for DOIs and the `url` field for URLs. If a BibTeX entry has a URL or DOI field, the paper title in the references section will appear as a hyperlink to the paper, using the `hyperref` L<sup>A</sup>T<sub>E</sub>X package.

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### 4.5 References

The L<sup>A</sup>T<sub>E</sub>X and BibTeX style files provided roughly follow the American Psychological Association format. If your own bib file is named `custom.bib`, then placing the following before any appendices in your L<sup>A</sup>T<sub>E</sub>X file will generate the references section for you:

### Limitations

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ACL 2023 requires all submissions to have a section titled “Limitations”, for discussing the limitations of the paper as a complement to the discussion of strengths in the main text. This section should occur after the conclusion, but before the references. It will not count towards the page limit. The discussion of limitations is mandatory. Papers

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<sup>3</sup>This is a footnote.

without a limitation section will be desk-rejected without review.

While we are open to different types of limitations, just mentioning that a set of results have been shown for English only probably does not reflect what we expect. Mentioning that the method works mostly for languages with limited morphology, like English, is a much better alternative. In addition, limitations such as low scalability to long text, the requirement of large GPU resources, or other things that inspire crucial further investigation are welcome.

## Ethics Statement

Scientific work published at ACL 2023 must comply with the ACL Ethics Policy.<sup>4</sup> We encourage all authors to include an explicit ethics statement on the broader impact of the work, or other ethical considerations after the conclusion but before the references. The ethics statement will not count toward the page limit (8 pages for long, 4 pages for short papers).

## Acknowledgements

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*on Artificial Intelligence and the Conference on Computer Vision and Pattern Recognition.*

## References

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## A Example Appendix

This is a section in the appendix.

<sup>4</sup><https://www.aclweb.org/portal/content/acl-code-ethics>