

# The *nacv* class <sup>\*</sup>

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## Abstract

The *nacv* document class provides four basic features: a column for dates, bulleted items without the environment, some commands for listing publications from a *BibTeX* file, and some commands for listing contact info using *fontawesome* icons.

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<sup>\*</sup>vo.2.3 [2024/10/20], [ctan.org/pkg/nacv](https://ctan.org/pkg/nacv) (coming soon), [github.com/jessexknight/nacv](https://github.com/jessexknight/nacv)  
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# 1 Usage

`\documentclass[<options>]{nacv}`

## 1.1 Options

Default options are denoted like (`this`).

Options from the parent *article* class are also available.

`<itemsep=>` (`0ex`) Vertical space added between most elements using `\addvspace`.

`<datesep=>` (`--`) Symbol between two dates.

`<datewid=>` (`4em`) Standard width of a single date.

`<dategap=>` (`1em`) Horizontal space between the date(s) and content.

`<margin=>` (`35mm`) The page margins.

`<bibstyle=>` (`numeric`) The *Bib<sub>A</sub>T<sub>E</sub>X* style to apply in `\publications`.

`<bibNamebold=>` (`true`) Whether the CV author's name is bolded in `\publications`.

## 1.2 Commands

Optional and mandatory arguments are denoted like [`this`] and {`this`}.

Commands from the parent *article* class are also available, including `\section`, etc.

### 1.2.1 Dates Column

The dates column is implemented using pairs of top-aligned `\parbox`, separated horizontally by `<dategap>`. The width of the *date* box is defined based on the most recent `\*date` command as follows:

`\twodate` Sets *date* box width to: `2*<datewid>+\widthof{<datesep>}` (default)

`\onedate` Sets *date* box width to: `<datewid>`

`\nodate` Sets *date* box width to: `-<dategap>` (flush with margin)

The width of the *content* box is defined to be the remaining `\linewidth`. The width definitions are processed in `\AtBeginDocument` so that any font changes are reflected in `\widthof{<datesep>}`.

`\dated` [`topsep`]{`from`}{`to`}{`content`} The workhorse macro for dated elements: creates the two `\parbox`. Users can/should create content-specific commands using `\dated` (e.g., `\education`, `\award`, etc.), which *nacv* avoids doing to allow maximum flexibility.

- [`topsep`] can be used to override the default space (`<itemsep>`) between elements.
- If {`from`} is non-empty, the *date* box will contain: `{from}\hfill<datesep>\hfill{to}`.
- If {`from`} is empty, the *date* box will contain: `\hfill{to}` (right justified).
- The *content* box will of course contain {`content`}.

`\bullet [topsep]` The workhorse macro for itemized content: skips the date column and adds `<bulletsymbol>`. Similar to `\item`, the content is not an argument. Unlike `\item`, there is no surrounding environment or extra space. The downside is that wrapping content (longer than one line) does not align.

### 1.2.2 Name & Contact

`\name {given}{family}` Stores the name of the CV author for `\maketitle` and `\publications`.

`\title {title}` Stores the title and/or affiliation of the CV author for `\maketitle`.

`\contact [href]{icon}{label}` Adds an item of contact info to an internal list for `\maketitle`.

- If `[href]` is non-empty, the item will link to “`[href]{label}`” (e.g. `[href]=mailto:` and `{label}=first.last@mail.com` will link to “`mailto:first.last@mail.com`”).
- If `[href]` is empty (default), no link will be created.
- If `{icon}` is non-empty, that *fontawesome* icon will be added to the right of the text.
- If `{icon}` is empty, no icon will be added.
- `{label}` is the text added to the left of the icon.

`\maketitle` Creates the author block, comprising the name and title left left-aligned, and the list of contact info right-aligned. Each side is added in a `\parbox` that is `\textwidth` wide, so users should check for overlapping content.

### 1.2.3 Publications

`\publications [bibids]{bibargs}` A glorified wrapper for `\printbibliography` with helpful defaults and two ways to select a subset of references:

- `[bibids]` can be passed to `\nocite` to manually select references.
- `{bibargs}` are passed to `\printbibliography` to filter references by attributes (e.g., `type=article, keyword=oral`, etc.). Users must add `\nocite{*}` first with this approach.

### 1.2.4 Style Hooks

The following style hooks support customization of some elements, with default values denoted like `(this)`.

`\datestyle {arg} (\strut#1)` Styles dates in `\dated`.

`\contentstyle {arg} (\strut#1)` Styles content in `\dated`.

`\namestyle {arg} (\huge#1)` Styles the name in `\maketitle`.

`\titlestyle {arg} (#1)` Styles title name in `\maketitle`.

`\contactstyle {arg} (#1)` Styles contact information in `\maketitle`.

`\bulletsymbol (\textbullet)` The symbol used in `\bullet`.

## 2 Implementation

```
1 % TODO: documentation
2 % options
3 \RequirePackage{kvoptions}
4 \SetupKeyvalOptions{family=nacv,prefix=nacv@}
5 \DeclareStringOption[0ex]{itemsep}
6 \DeclareStringOption[--]{datesep}
7 \DeclareStringOption[4em]{datewid}
8 \DeclareStringOption[1em]{dategap}
9 \DeclareStringOption[35mm]{margin}
10 \DeclareStringOption[numeric]{bibstyle}
11 \DeclareBoolOption[true]{bibnamebold}
12 \DeclareOption*{\PassOptionsToClass{\CurrentOption}{article}}
13 \ExecuteOptions{}
14 \ProcessKeyvalOptions*
15 \ProcessOptions\relax
16 \LoadClass{article}
17 % packages
18 \RequirePackage[nomarginpar,margin=\nacv@margin]{geometry}
19 \RequirePackage{calc}
20 \RequirePackage{fontawesome5}
21 % misc lengths
22 \setlength\parindent{0pt}
23 \setlength\parskip{0pt}
24 \newlength\nacv@w@itemsep
25 \setlength\nacv@w@itemsep{\nacv@itemsep}
26 % date lengths
27 \newlength\nacv@w@date
28 \newlength\nacv@w@datesep
29 \newlength\nacv@w@dategap
30 \newlength\nacv@w@datex
31 \newlength\nacv@w@contentx
32 \newcommand{\nacv@w@update}[1]{%
33   \setlength\nacv@w@datex{\dimexpr#1}%
34   \setlength\nacv@w@contentx{\dimexpr\linewidth-\nacv@w@datex-\nacv@w@dategap}}
35 \newcommand{\nodate}{\nacv@w@update{-\nacv@w@dategap}}
36 \newcommand{\onedate}{\nacv@w@update{\nacv@w@date}}
37 \newcommand{\twodate}{\nacv@w@update{2\nacv@w@date+\nacv@w@datesep}}
38 \AtBeginDocument{%
39   \setlength\nacv@w@date{\nacv@datewid}%
40   \setlength\nacv@w@datesep{\widthof{\nacv@datesep}}%
41   \setlength\nacv@w@dategap{\nacv@dategap}%
42   \twodate}
43 % date boxes
```

```

44 \newcommand{\ifempty}[3]{\if\relax\detokenize{#1}\relax#2\else#3\fi}
45 \newcommand{\nacv@datestr}[2]{%
46   \ifempty{#1}{\hfill#2}{#1\hfill\nacv@datesep\hfill#2}}
47 \newcommand{\nacv@datebox}[3]{%
48   \ifdim\nacv@w@datex<0pt\hskip\nacv@w@datex\fi%
49   \parbox[t]{\nacv@w@datex}{\datestyle{\nacv@datestr{#1}{#2}}\par}%
50   \hskip\nacv@w@dategap%
51   \parbox[t]{\nacv@w@contentx}{\contentstyle{#3}\par}}
52 \newcommand{\dated}[4][\nacv@w@itemsep]{\par%
53   \addvspace{#1}\nacv@datebox{#2}{#3}{#4}\par}
54 \renewcommand{\bullet}[1][\nacv@w@itemsep]{\par%
55   \addvspace{#1}\hskip\dimexpr\nacv@w@datex+\nacv@w@dategap%
56   {\bulletsymbol}\hskip\labelsep\ignorespaces}
57 % name & title
58 \newcommand{\name}[2]{
59   \gdef\nacv@name@given{#1}
60   \gdef\nacv@name@family{#2}}
61 \name{(First)}{(Last)}
62 \renewcommand{\title}[1]{
63   \gdef\nacv@title{#1}}
64 \title{(Title)}
65 % contact info & icons
66 \newcommand{\nacv@contact@list}{}
67 \newcommand{\nacv@icon}[1]{%
68   \parbox{1em}{\centering\small\ifempty{#1}{~}{\faIcon{#1}}}}
69 \newcommand{\nacv@iconlink}[3]{%
70   \ifempty{#1}{#3~\nacv@icon{#2}}{\href{#1#3}{#3~\nacv@icon{#2}}}}
71 \newcommand{\contact}[3][\%
72   \g@addto@macro\nacv@contact@list{\nacv@iconlink{#1}{#2}{#3}\par}}
73 % maketitle
74 \newcommand{\lrboxes}[2]{%
75   \parbox[t]{\textwidth}{#1\par}%
76   \hspace{-\textwidth}%
77   \parbox[t]{\textwidth}{\raggedleft#2\par}}
78 \renewcommand{\maketitle}{%
79   \thispagestyle{empty}%
80   \lrboxes{%
81     {\namestyle{\nacv@name@given~\nacv@name@family}}\par%
82     \addvspace{1ex}%
83     {\titlestyle{\nacv@title}}\par}
84     {\contactstyle{\nacv@contact@list}\par}}
85 % bib stuff
86 \RequirePackage[
87   backend=biber,
88   sorting=symd,

```

```

89 style=\nacv@bibstyle,
90 defernumbers=true,
91 ]{biblatex}
92 \DeclareSortingTemplate{synd}{
93   \sort[direction=descending]{\field{sortyear}\field{year}}
94   \sort[direction=descending]{\field{month}}
95   \sort[direction=descending]{\field{day}}
96 \newcommand{\nacv@mkbibname}[1]{\ifthenelse{%
97   \equal{\nacv@name@given}{\namepartgiven} \AND
98   \equal{\nacv@name@family}{\namepartfamily} \AND
99   \boolean{nacv@bibnamebold}}{%
100   {\mkbibbold{#1}}{#1}}
101 \let\mkbibnamegiven\nacv@mkbibname
102 \let\mkbibnamefamily\nacv@mkbibname
103 \setlength{\biblabelsep}{\labelsep}
104 \DeclareFieldFormat{labelnumberwidth}{#1\addot\hfill}
105 \newcommand{\publications}[2][\nocite{#1}\par%
106   \addvspace{\nacv@w@itemsep}%
107   \printbibliography[resetnumbers=true,heading=none,#2]}
108 % hyperref hack: https://tex.stackexchange.com/questions/484088
109 \AtEndOfClass{\ifx\ver@hyperref\relax%
110   \hypersetup{pdftitle={CV},pdfauthor={\nacv@name@first\ \nacv@name@last}}%
111   \relax\else\newcommand{\href}[2]{#2}\fi}
112 % hooks
113 \renewcommand{\@secntformat}[1]{}
114 \newcommand{\datestyle}[1]{\strut#1}
115 \newcommand{\contentstyle}[1]{\strut#1}
116 \newcommand{\namestyle}[1]{\huge#1}
117 \newcommand{\titlestyle}[1]{#1}
118 \newcommand{\contactstyle}[1]{#1}
119 \newcommand{\bulletsymbol}{\textbullet}
120 % end

```