

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

Jesse Knight <sup>†</sup>

July 16, 2023

## 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.

## Contents

<b>1</b>	<b>Usage</b>	<b>2</b>
1.1	Options . . . . .	2
1.2	Commands . . . . .	2
1.2.1	Dates Column . . . . .	2
1.2.2	Name & Contact . . . . .	3
1.2.3	Publications . . . . .	3
1.2.4	Style Hooks . . . . .	3
<b>2</b>	<b>Implementation</b>	<b>4</b>

---

<sup>\*</sup>vo.2.0 [2023/07/15], [ctan.org/pkg/nacv](https://ctan.org/pkg/nacv), [github.com/jessexknight/nacv](https://github.com/jessexknight/nacv)  
<sup>†</sup>maintainer, contact: [jesse.x.knight@protonmail.com](mailto:jesse.x.knight@protonmail.com)

# 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.

`<bibNamebold=*>` (`true`) Whether the CV author's name is be 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>`

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}{name}` Adds an item of contact info to an internal macro for `\maketitle`.  
TODO: finish after revising definition.

`\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`.

`\bulletstyle (\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 \DeclareBoolOption[true]{bibnamebold}
11 \DeclareOption*{\PassOptionsToClass{\CurrentOption}{article}}
12 \ExecuteOptions{}
13 \ProcessKeyvalOptions*
14 \ProcessOptions\relax
15 \LoadClass{article}
16 % packages
17 \RequirePackage[nomarginpar,margin=\nacv@margin]{geometry}
18 \RequirePackage{calc}
19 \RequirePackage{fontawesome5}
20 % misc lengths
21 \setlength\parindent{0pt}
22 \setlength\parskip{0pt}
23 \newlength\nacv@w@itemsep
24 \setlength\nacv@w@itemsep{\nacv@itemsep}
25 % date lengths
26 \newlength\nacv@w@date
27 \newlength\nacv@w@datesep
28 \newlength\nacv@w@dategap
29 \newlength\nacv@w@datex
30 \newlength\nacv@w@contentx
31 \newcommand{\nacv@w@update}[1]{%
32   \setlength\nacv@w@datex{\dimexpr#1}%
33   \setlength\nacv@w@contentx{\dimexpr\linewidth-\nacv@w@datex-\nacv@w@dategap}}
34 \newcommand{\nodate}{\nacv@w@update{-\nacv@w@dategap}}
35 \newcommand{\onedate}{\nacv@w@update{\nacv@w@date}}
36 \newcommand{\twodate}{\nacv@w@update{2\nacv@w@date+\nacv@w@datesep}}
37 \AtBeginDocument{%
38   \setlength\nacv@w@date{\nacv@datewid}%
39   \setlength\nacv@w@datesep{\widthof{\nacv@datesep}}%
40   \setlength\nacv@w@dategap{\nacv@dategap}%
41   \twodate}
42 % date boxes
43 \newcommand{\ifempty}[3]{\if\relax\detokenize{#1}\relax#2\else#3\fi}
```

```

44 \newcommand{\nacv@datestr}[2]{%
45   \ifempty{#1}{\hfill#2}{#1\hfill\nacv@datesep\hfill#2}}
46 \newcommand{\nacv@datebox}[3]{%
47   \ifdim\nacv@w@datex<0pt\hskip\nacv@w@datex\fi%
48   \parbox[t]{\nacv@w@datex}{\datestyle{\nacv@datestr{#1}{#2}}\par}%
49   \hskip\nacv@w@dategap%
50   \parbox[t]{\nacv@w@contentx}{\contentstyle{#3}\par}}
51 \newcommand{\dated}[4][\nacv@w@itemsep]{\par%
52   \addvspace{#1}\nacv@datebox{#2}{#3}{#4}\par}
53 \renewcommand{\bullet}[1][\nacv@w@itemsep]{\par%
54   \addvspace{#1}\hskip\dimexpr\nacv@w@datex+\nacv@w@dategap%
55   {\bulletsymbol}\hskip\labelsep\ignorespaces}
56 % name & title
57 \newcommand{\name}[2]{
58   \gdef\nacv@name@given{#1}
59   \gdef\nacv@name@family{#2}}
60 \name{(First)}{(Last)}
61 \renewcommand{\title}[1]{
62   \gdef\nacv@title{#1}}
63 \title{(Title)}
64 % contact info & icons
65 \newcommand{\nacv@contact@list}{}
66 \newcommand{\nacv@icon}[1]{%
67   \parbox{1em}{\centering\small\ifempty{#1}{~}{\faIcon{#1}}}}
68 \newcommand{\nacv@iconlink}[3]{%
69   \ifempty{#1}{#3~\nacv@icon{#2}}{\href{#1#3}{#3~\nacv@icon{#2}}}}
70 \newcommand{\contact}[3][ ]{%
71   \g@addto@macro\nacv@contact@list{\nacv@iconlink{#1}{#2}{#3}\par}}
72 % TODO: \contact*{site}{id} -> \contact[https://site.com]{site}{id}
73 % https://tex.stackexchange.com/questions/4386
74 % maketitle
75 \renewcommand{\maketitle}{%
76   \thispagestyle{empty}%
77   \parbox[t]{\textwidth}{%
78     {\namestyle{\nacv@name@given~\nacv@name@family}}\par%
79     \addvspace{1ex}%
80     {\titlestyle{\nacv@title}}\par}%
81   \hspace{-\textwidth}%
82   \parbox[t]{\textwidth}{%
83     \raggedleft\contactstyle{\nacv@contact@list}\par}}
84 % bib stuff
85 \RequirePackage[
86   backend=biber,
87   sorting=symd,
88   style=numeric,

```

```

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

```