

# L<sup>A</sup>T<sub>E</sub>X curricula vitae with the *CurV<sub>e</sub>* class

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Abstract *CurV<sub>e</sub>* is a L<sup>A</sup>T<sub>E</sub>X<sub>2 $\epsilon$</sub>  class for writing curricula vitae (cv). It provides a set of commands to create headers, rubrics, entries in these rubrics *etc.* *CurV<sub>e</sub>* will then format your cv with a consistent layout while you can just concentrate on the contents. The layout of a *CurV<sub>e</sub>* cv is highly customizable. *CurV<sub>e</sub>* also has a very special feature known as the *flavor mechanism*: it is able to manage different “flavors” (versions) of your cv simultaneously. *CurV<sub>e</sub>* is distributed under the terms of the LPPL license. This paper describes the features available in version 1.11.

## 1 Getting *CurV<sub>e</sub>*

*CurV<sub>e</sub>* can be obtained from any CTAN archive, at [CTAN:macros/latex/contrib/curve](http://ctan.org/macros/latex/contrib/curve). You can also download it directly from my website, at the URL above. Please follow the links on the left menu.

If you are a Debian unstable user (unstable referring to Debian, not you), unofficial source and i386 packages are available. The package name is *curve*. Here’s the `source.list` entry to use:

```
deb http://www.lrde.epita.fr/debian/ unstable/i386/  
deb-src http://www.lrde.epita.fr/debian/ sid/source/
```

For installation instructions, please read the README file included in the distribution.

## 2 First Contact

Figure 1 shows the output of  $C_{urV}_e$  for a minimal cv with absolutely no customization of any kind. Only the basic information for a cv is provided.

### 2.1 The document layout

Note the different parts of a cv made by  $C_{urV}_e$ , and their default layout: as you can see, a cv begins with a small photo, two headers (upper left and upper right) in which you usually put your name, address, email, whether you're married and so on. After these headers come a title and a subtitle.

The remainder of the document is composed of sections called “rubrics” in the  $C_{urV}_e$  terminology. A rubric represents a major topic that you want to detail in your cv. Typical rubrics are “Professional Experience”, “Education” and the like. Rubrics have a title, centered on the page by default, and appear under the form of properly aligned “entries” (see below). If a rubric has to be split across different pages, its title will be repeated automatically.

An entry is an item of information related to the rubric under which it appears. An entry has a “contents”, and an optional “key” under which it is classified. For instance, under the “Education” rubric, you could state that you got a Ph.D. in computer science in the year 2000. In that case, the year would be the entry’s key, and the “Ph.D. in computer science” part would be the entry’s contents.  $C_{urV}_e$  aligns both keys and contents together. Keys are optional in order for you to classify several entries together (without repeating the same key over and over again). There is also an option that will make  $C_{urV}_e$  automatically skip identical keys in consecutive entries.

Additionally, you might want to further split your rubrics into “subrubrics”.

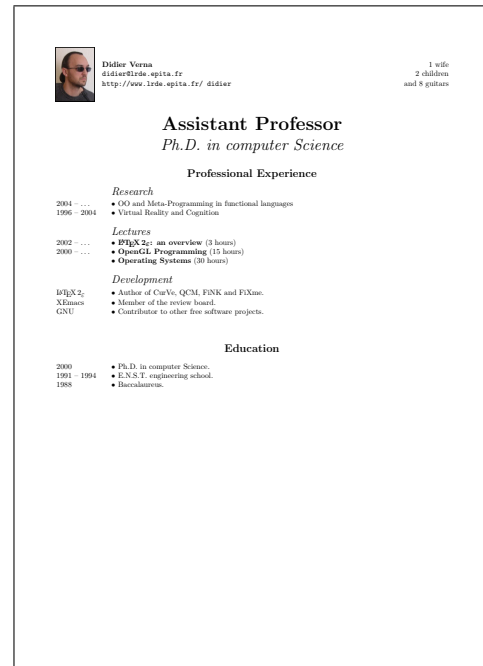


Figure 1: A minimal cv

For instance, in the example above, the “Professional Experience” rubric is further split into three subrubrics: “Research”, “Lectures”, and “Development”. Subrubrics are displayed in alignment with the entries’ contents by default, but are formatted differently so that they remain distinguishable.

Finally, note the presence of a small bullet in front of each entry’s contents. This is called a “prefix” in the *CurVe* terminology. This prefix is a visual clue that helps in distinguishing one entry from another, especially in the case of multiline entries, or entries sharing the same key.

## 2.2 The code

### 2.2.1 The main source file

Let us now examine the source code for this cv. The main file is given in figure 2. The only tiny bit of customization here is the use of the `geometry` package to provide a very wide text area on the page, something very common for a cv. *CurVe* itself does not do anything to modify page dimensions, margins, etc. There are very powerful packages to deal with this so there is no point in duplicating the functionality.

Otherwise, the rest is pretty straightforward: you provide headers with the `\leftheader` and `\righthead` commands, the `\photo` command takes an image file name (sans extension if your `graphicx` package is properly configured), and the title and subtitle the usual way. Without any surprise, headers and titles are formatted by calling `\makeheaders` and `\maketitle` at the top of your document.

```
\NeedsTeXFormat{LaTeX2e}
\documentclass[a4paper]{curve}

\usepackage
[nohead,nofoot,hmargin=1.5cm,vmargin=1.5cm]
{geometry}

\leftheader{\textbf{Didier Verna}}\
\texttt{didier@lrde.epita.fr}\
\texttt{%
  http://www.lrde.epita.fr/~{didier}}
\righthead{1 wife\
  2 children\
  and 8 guitars}
\photo{didier}

\title{Assistant Professor}
\subtitle{Ph.D. in computer Science}

\begin{document}

\makeheaders
\maketitle

\makerubric{experience}
\makerubric{education}

\end{document}
```

Figure 2: A minimal source file

One surprise, however, is that the content of the rubric is not available directly in the main source file: each rubric must remain in its own file. For instance, to include an “education” rubric, you must write it to a file named `education.tex` and include it, as shown in the example, with the `\makerubric` command.

### 2.2.2 The rubric source files

The code associated with the “Professional Experience” rubric is shown in figure 3. As you can see, the whole contents of a rubric file must be enclosed in a rubric environment. This environment takes one mandatory argument which specifies the rubric’s title. When a rubric crosses several pages, its title is restated with a “continuation” text appended.

You create entries in your rubrics by calling the `\entry*` macro. This macro behaves much like an `\item` within a list environment: there is one optional argument that defines the entry’s key (otherwise empty), and the entry’s contents are simply anything that follows, up to the next entry or subrubric. The presence of a star in the command’s name is for historical reasons: there is also a `\entry` command that takes the whole entry’s contents as a mandatory argument (hence within braces).

In order to create a subrubric, you simply call the `\subrubric` command. Its mandatory argument specifies the subrubric’s title.

```
\begin{rubric}{Professional Experience}

  \subrubric{Research}
  \entry*[2004 — \ldots]
    OO and Meta-Programming in functional
    languages
  \entry*[1996 — 2004]
    Virtual Reality and Cognition

  \subrubric{Lectures}
  \entry*[2002 — \ldots]
    \textbf{\LaTeXe: an overview} (3 hours)
  \entry*[2000 — \ldots]
    \textbf{OpenGL Programming} (15 hours)
  \entry*
    \textbf{Operating Systems} (30 hours)

  \subrubric{Development}
  \entry*[\LaTeXe]
    Author of CurVe, QCM, FiNK and FiXme.
  \entry*[XEmacs]
    Member of the review board.
  \entry*[GNU]
    Contributor to other free software
    projects.

\end{rubric}
```

Figure 3: A rubric source file

### 3 Customizing the appearance

In the previous section, we saw that writing a cv with *CurVé* is a fairly easy process. Once you are satisfied with the contents, you might still want to tweak the layout to your personal taste (or constraints). Since the layout generated by *CurVé* is extremely customizable, it would be out of the scope of this paper to describe every possible configuration option (besides, *CurVé* is fully documented, and the documentation is, I hope, well written). Rather, let us take back our minimal example and tweak it a bit to illustrate some of the possible customizations.

Figure 4 shows the result of the customization process. The full source code for this version is given in Appendix A. Note that there is no modification of the rubrics files whatsoever.

You can see that the photo is now on the right. This is achieved by passing an optional argument to `\photo` like this: `\photo[r]{didier}`. You can use `l` (the default), `c` or `r` meaning that the photo will appear on the left, center, or right.

Additionally, the headers are now aligned on top, rather than vertically centered. This is achieved by passing an optional argument to `\makeheaders` like this: `\makeheaders[t]`. You can use `t` (for top), `b` (for bottom) or `c` (for center; the default).

Also, note the use of different fonts for the titles, rubrics, keys *etc.* In *CurVé* virtually any text category comes with a command to modify the font used for it. For instance, to change the appearance of the rubrics' titles, use the `\rubricfont` command, to change that of the title, use the `\titlefont` command and so on.

You will also notice that we changed the prefix for something fancier. The command to do that is `\prefix`, to which we passed `\ding{52}` (from the `pifont` package) in that particular case. If you prefer, you can get rid of the prefix altogether.

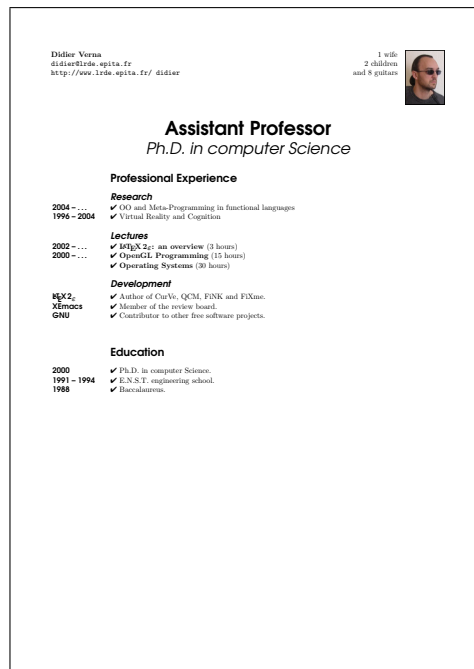


Figure 4: A customized cv

Finally, note how we changed the alignment of the rubrics' titles: they are not centered anymore, but rather aligned with the entries' contents (and also the subrubrics for that matter). The command to do that is `\rubricalignment`. There are up to 6 possible alignments for the rubrics' titles. Horizontal alignment of the subrubrics and the keys can also be changed.

## 4 Advanced usage

In this section, we describe two advanced features of *CurVe* that might come in handy.

### 4.1 Bibliography

Most scientists include their own list of publications in their cv. The first thing you can do is create your own bibliography manually, just as you would create a rubric.

If you find this process too cumbersome, however, you can use the standard L<sup>A</sup>T<sub>E</sub>X bibliography mechanisms with *CurVe*: the `thebibliography` environment is supported along with its `\bibitem` companion. The behavior is actually that of a rubric environment with its `\entry*` companion (with an empty prefix however). Hence, the layout of the bibliography remains consistent with the rest of the cv. This fact has two implications however: firstly, the argument to the `thebibliography` environment is unused in *CurVe* (but remains for compatibility with the rest of L<sup>A</sup>T<sub>E</sub>X) because *CurVe* itself formats the keys and contents properly aligned. Secondly, the bibliographic environment **must** reside in its own file, as any other rubric. Don't forget that if you happen to write the environment manually.

If you want to use B<sub>I</sub>B<sub>T</sub>E<sub>X</sub>, that's also possible of course. Do it as you would do in any other document. You will probably issue a `\nocite{*}` command followed by a call to `\bibliography`. In *CurVe*, the `bb1` file is actually used as if it is just another rubric on the cv.

Finally, note that *CurVe* is compatible with the `bibentry` package.

## 4.2 Flavors

It is often desirable to maintain several slightly divergent versions of one's cv at the same time. For instance, when I was looking for a job some time ago, I had a version of my cv emphasizing Artificial Intelligence, and another emphasizing Distributed Virtual Reality. Only the title and some entries in the "Professional Experience" rubric were a bit different; the main skeleton basically remained the same.

`CvVe` provides an easy-to-use mechanism for maintaining different "flavors" of your cv at the same time. You basically write different versions of (some of) your rubrics in different files, tell `CvVe` which flavor you want to format (`CvVe` can even ask you which one to use directly) and that's it. `CvVe` will use the global skeleton, and whenever it finds a rubric file specialized for that particular flavor, it will use it. Otherwise, it will simply fall back to the default one (no particular flavor).

The flavor mechanism works by assigning a pre-extension to rubric file names. For instance, suppose you want to make a special flavor of your cv emphasizing "distributed virtual reality". You would call this flavor "dvr", and write the modified "Professional Experience" rubric into a file named `experience.dvr.tex`.

In order to tell `CvVe` which flavor to use, you then call the `\flavor` macro like this: `\flavor{dvr}`. Instead of using the `\flavor` macro, you can make `CvVe` ask you at run-time which flavor to use by passing the `ask` option to it.

In order to implement the flavor mechanism, the L<sup>A</sup>T<sub>E</sub>X macro `\input` is redefined to look for "flavored" files first. This is actually very nice because you can use it if you want to make different flavors of text that does not belong in rubrics. For instance, suppose you want a special version of the subtitle of your cv for the flavor `dvr`: just create a file called `subtitle.dvr.tex` and put something like `\subtitle{special subtitle}` in it. Do something similar for the default subtitle. Now go to the skeleton of your cv, and write `\input{subtitle}` in the preamble. That's it. You have different subtitles in your different cv flavors.

## 5 Conclusion

In this paper, we have barely scratched the surface of the features `CvVe` has to offer, but provided enough, I hope, to make the reader feel like giving it a try. For

instance, there are many more customization options available (control of spacing, most notably). Please refer to the official documentation for more information.

To conclude, let me just mention some other important features of  $\mathcal{C}_u\mathcal{V}_e$ : it supports the standard  $\text{\LaTeX}$  options (font size, paper geometry *etc.*) and page styles. It comes with built-in support for AUC- $\text{\TeX}$  (command completion in Emacs or XEmacs *etc.*). Thanks to many contributors, 9 foreign languages are also supported (and customizable).

$\mathcal{C}_u\mathcal{V}_e$  has some caveats though, mostly as a consequence of the underlying implementation based on the `LTXtable` package. In order to help, the official documentation now provides a `FAQ` and a section with some hints on what you can and can't do within a "longtable".

The next big step for  $\mathcal{C}_u\mathcal{V}_e$  (which will trigger an increment of the major version number) will be the support for the notion of "themes". The idea is to make it easy to use predefined layouts, and also to support official cv styles, like the european one. This has been on my todo list ... for some time now!



## A Customized main source file

```
\NeedsTeXFormat{LaTeX2e}
\documentclass[a4paper]{curve}

\usepackage[nohead, nofoot, hmargin=1.5cm, vmargin=1.5cm]{geometry}

\leftheadert{\textbf{Didier Verna}}\
\texttt{didier@lrde.epita.fr}\
\texttt{%
  http://www.lrde.epita.fr/~{didier}}
\righthedert{1 wife\
  2 children\
  and 8 guitars}
\photo[r]{didier}

\titlefont{\fontfamily{pag}\selectfont\bfseries\Huge}
\title{Assistant Professor}

\subtitlefont{\fontfamily{pag}\selectfont\itshape\huge}
\subtitle{Ph.D. in computer Science}

\rubricfont{\fontfamily{pag}\selectfont\bfseries\Large}
\rubricalignment{c1}

\subrubricfont{\fontfamily{pag}\selectfont\bfseries\itshape\large}

\keyfont{\fontfamily{pag}\selectfont\bfseries}

\usepackage{pifont}
\prefix{\ding{52}}

\begin{document}

\makeheaders[t]
\maketitle

\makerubric{experience}
\makerubric{education}

\end{document}
```