# Writing the curriculum vitæ with LATEX

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Abstract This paper presents the tools that are currently available to prepare the curriculum vitæ with LATEX with a critical analysis of packages and classes.

### 1 Preamble

This article deals with writing the curriculum vitæ both in general and with LATEX. The first part (par. 2 and 3) analyzes the guidelines on how to write the curriculum vitæ and can be applied to any text editor. The second part (par. 4 and 6) requires an elementary knowledge of LATEX, which can be obtained from a basic guide [7, 8, 25, 28] or from a more comprehensive book [21, 23].

After analyzing styles and structures (par. 2), the article suggests some effective ways to write a curriculum vitæ (par. 3). Since LATEX will be used for composing the curriculum vitæ, the main sections review the available classes and packages (par. 4) and give some recommendations on how to customize them (par. 6).

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### 2 Introduction

The curriculum vitæ is a document that contains a summary of an individual's business and academic experiences. In most cases its purpose is to present ourselves to a prospective employer in order to obtain a job interview. It is the first source of information about the applicant that the prospective employer sees, and on which he will decide whether to invite the candidate for a job interview.

Many books have been written, both in English and in Italian, about strategies of writing the curriculum vitæ [1–6, 9–14, 16–20, 22, 24, 26, 27, 29]. This article will not be as comprehensive as these books but will review the essential guidelines.

#### 2.1 The name

The curriculum vitæ takes different names in different languages. In Italian the latin word *curriculum* (from *currere* which means "to run") became, in the late nineteenth century, *curriculum vitæ*, which means "course of life".

It is called curriculum vitæ (sometimes abbreviated as "curriculum" or "CV") in Europe, New Zealand, French Canada, and in other British Commonwealth countries. In North America (USA and English Canada) and in the Philippines there is a distinction between résumé, when the document is for the private sector, and curriculum vitæ (sometimes simply *vita*) for academia. In Australia and in India there is no distinction between curriculum vitæ and résumé.

### 2.2 Contents

### 2.2.1 Curriculum vitæ

The curriculum vitæ contains a complete list of a person's professional and academic experiences, a list of publications, contributions and achievements. Other personal information, not necessarily pertinent to the professional profile, can be added in order to provide a wider perspective of the person.

<sup>1.</sup> The word *résumé*, used in several English speaking countries, is the past participle of *résumer* which is the French for "summarize" and derives from the Latin *resumere*. It can be spelled either *resumé* or *resume*.

#### 2.2.2 Résumé

The résumé is usually shorter than the curriculum vitæ. The candidate presents in one or two pages only the experiences and credentials that are relevant to the position for which he is applying. Keywords are often added to the résumé to capture the employer's attention.

### 2.3 Style

### 2.3.1 Chronological

With the chronological style, the business and academic experiences are reported in reverse chronological order.<sup>2</sup> It is the most common style and highlights the progress of the candidate's professional career.

#### 2.3.2 Functional

With the functional style, the work experience is grouped into topic areas. It highlights the candidate's experience and expertise in specific areas.

#### 2.3.3 Mixed

There is also a mixed style in which the experiences are grouped into topic areas (functional) and, within each area, they are shown most recent first (chronological).

### 2.4 Structure

The structure and the contents of the curriculum vitæ can vary a lot in different contexts. It is, however, possible to distinguish between *essential* and *optional* information.

<sup>2.</sup> Less often the list may be in direct chronological order.

#### 2.4.1 Essential information

- Personal data: name, sex, date and place of birth, citizenship, marital status, address, telephone and fax number, email, web site.<sup>3</sup>
- **Education**: includes a list in reverse chronological order of qualifications and titles, including memberships. Sometimes information is added about the classes attended if this is relevant for the application.
- Work experiences: includes a list of all work experience, including the current position. The achievements and responsibilities, and not the tasks, should be reported for each position. The most important work experiences should report concept, planning, and results.

### 2.4.2 Optional information

- Personal profile: although it is not common, the curriculum vitæ can include a paragraph which briefly describes the candidate. It can be written either in first or third person and outlines the best qualities and abilities of the candidate. If present, the personal profile is usually at the beginning of the curriculum vitæ.
- Personal objectives: sometimes the curriculum vitæ can include a sentence that describes the professional objectives of the candidate.
- **Photo**: the presence of a picture depends a lot on the locality. In Germany the it is usual to provide a photograph. In India the picture is usually required for positions in which there is contact with the public. In the USA it is not common to attach a picture to the curriculum vitæ because it may be a cause of discrimination (based on age, sex, race, etc.). In Italy there are no restrictions regarding pictures and the choice is up to the candidate.
- Foreign languages: it is recommended to include a list of languages known, specifying written and oral proficiency, and the results of foreign language exams.

<sup>3.</sup> Not all this data is usually required. In some cases the applicant is openly required to omit some information (e.g. the sex and the date of birth) in order to avoid discrimination. This applies to most US companies.

- Computer knowledge: the list of the known computer applications was very important in the 1980s but was already considered unnecessary by the 1990s. It may be useful to describe proficiency with technical software, programming languages, and other tools that are not considered to be common knowledge.
- Other activities: interests, hobbies, sports, etc.

### 2.4.3 European standard

The European Commission proposed a standard model for the curriculum vitæ which was adopted by the European Parliament on December 15, 2004. This model, called Europeass CV, substitutes the European CV, which was introduced in 2002, and provides guidelines both for the style and the contents. The model requires the following sections [15]:

- personal information: name, address, telephone, fax, email, nationality, date and place of birth;
- desired employment/occupational field;
- work experience: dates, occupation or position held, main activities and responsibilities, name and address of employer, type of business or sector;
- personal skills and competencies: mother tongue, other languages; the text provides a grid to self-assess the foreign language level of proficiency in comprehension, speaking and writing;
- education and training: dates, title of qualification awarded, principal subjects/occupational skills covered, principal subjects/occupational skills covered, level in national or international classification;

the following sections are optional:

- social skills and competencies;
- organizational skills and competencies;
- technical skills and competencies;
- computer skills and competencies;
- artistic skills and competencies;

- other skills and competencies;
- drivers license;
- additional information;
- appendices.

#### 2.4.4 Cover letter

The cover letter is usually attached to the curriculum vitæ to present the application. The letter includes a brief description of the candidate and the reason for applying for the position. It makes a good impression if the applicant shows some knowledge of the company and the position for which he is applying. The letter describes the applicant's relevant work experience only, and refers to the curriculum vitæ for further details.

## 3 How to write a good curriculum vitæ

### 3.1 Importance of the curriculum vitæ

The curriculum vitæ is often the first contact with the future employer and for this reason it is a crucial step in obtaining an interview and a possible job offer. The curriculum vitæ must be accurate both in *appearance* and *content*. It is always a good idea to ask others to review it before submission to make sure that the content is clear. Attention should be focused on the experiences that are relevant to the position to be sure the employer will not miss them. To best tailor the document to the position requirements, the candidate should obtain information about the company to which he is applying.

#### 3.2 Be concise

A very common mistake of a curriculum vitæ is to be *needlessly long*. Candidates often make the mistake of including everything in the curriculum vitæ, including details that are insignificant from the employer's point of view. The curriculum vitæ should always be as concise as possible and highlight the important aspects.

The best solution is to research the type of curriculum vitæ the employer is expecting. In most cases the document must be under two pages (sometimes only one), and occasionally it must contain complete details. Alternatively, the candidate can prepare two versions of the curriculum vitæ, a concise one and an extensive one.<sup>4</sup> The short one can report a link to the long one so that the employer can examine both as needed.

### 3.3 Capture the reader's attention

The curriculum vitæ plays an important role at the very beginning of a job application when the employer reviews many applications and spends only a few minutes on each one. For this reason, it is crucial that the curriculum vitæ capture the reader's attention and stand out from the others. There are different ways to be stand out and some are better than others: with an elegant typographic style, with a good selection of content, etc. Being able to present our abilities and knowledge in a clear and orderly fashion is already an advantage over the competing applicants.

### 3.4 LATEX

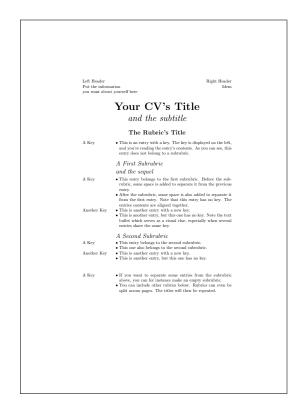
IATEX, which produces very high quality documents, is an excellent choice to prepare the curriculum vitæ. It allows the candidate to focus on the content and not worry about the format. The following paragraphs (par. 4 and 6) provide the basic techniques for preparing a curriculum vitæ with IATEX.

## 4 LATEX classes and packages

### 4.1 CurVe

CurVe, written by Didier Verna in 2000, is one of the most flexible classes to write the curriculum vitæ. It allows dividing the curriculum vitæ into different sections, called rubrics. CurVe lets the candidate prepare a modular curriculum vitæ that can be adapted to the specific application with very little work on the code. Each

<sup>4.</sup> This alternative is adopted even by Donald Knuth (http://www-cs-faculty.stanford.edu/~knuth/vita.html).



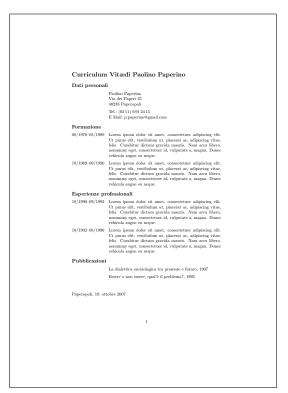


Figure 1: CurVe class.

Figure 2: currvita package.

rubric has a main topic (e.g. "education" or "work experience"); two rubrics may even have the same topic and be written in two different ways. The candidate may then easily decide which rubrics to include in the output with no need to change the LATEX code. The rubrics (or sub-rubrics) can be included in the main file with the \makerubric{rubric} command.

The syntax is very simple and can be learned easily from the manual. The manual also describes many ways to customize the output. The class allows inclusion of a photograph and has templates that can be customized.

*Drawbacks.* Curve is based on the longtable package and inherits its drawbacks. The layout is clean but not captivating (see fig. 1).

#### 4.2 curryita

curryita is a package written by Axel Reichert in 1999 and was presented as an alternative to the packages available at that time (vita, resumee, and tabularx). curryita is the recommended curriculum vitæ package for the classicthesis class. It allows the author to write the curriculum vitæ with a very simple and essential structure (see fig. 2). It does not allow any customization, apart from the position of the date and the spacing between sections. The documentation is complete and includes some useful notes on how to write a curriculum vitæ.

### 4.3 ESIEEcv

Created in 1997 by Benjamin Bayart for his personal use and later released on CTAN, ESIEEcv (see fig. 3) is a package written entirely in French (including the documentation and the command names) and does not support other languages. To use it with another language, the user needs to modify the source code of the package. The template is quite intuitive and shows how to use the dedicated environments (rubrique and sousrubrique) and commands (\Titre, \Lieu, ecc.).

### 4.4 europecv

In March 2002 the European Commission created and released on the web a template to write the curriculum vitæ, in order to set a standard for European citizens. Unfortunately, they released it only in .doc format. Nicola Vitacolonna wrote the europecv LATEX class that reproduces the European Commission template and at the same time allows some flexibility.

The layout is clear and pleasant (see fig. 5) and provides a table to indicate the proficiency in foreign languages according to the Common European Framework of Reference (CEFR). Some bugs in earlier versions of europecv have been corrected and the code is now stable. The class allows addition of a photograph and customization of the layout, while maintaining the Europass CV standard.

The documentation is clear and also includes a description of the skill levels in foreign languages that follows the CEFR. The class has multilingual support and allows a choice between a color or gray scale logo. The publications can be included with a .bib file. The class comes with source code and several templates which are useful for learning how to use it.





Figure 3: ESIEEcv package.

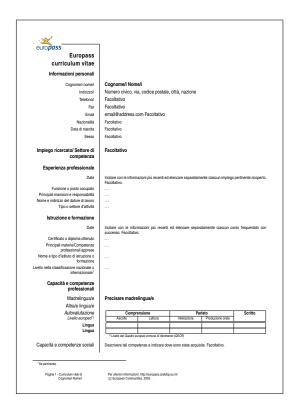
Figure 4: ecv package.

### 4.5 ecv

ecv, written by Christoph Neumann and Bernd Haberstrumpf in 2007, is a package based on the tabular environment. It is meant to reproduce the Europass CV format but the output (see fig. 4) is not as pleasant as that of the europecv class.

### 4.6 moderncy

moderncy, written by Xavier Danaux in 2007, is one of the best classes for writing a curriculum vitæ with LATEX. With a very nice layout (see fig. 6) and many dedicated commands, it can satisfy even demanding users. The templates provided with the class are very clear and contain many useful comments. Beginners can fill in the template with their data and have a curriculum vitæ in a few minutes. The class offers two options, casual and classic, to change the position of the photograph and the personal information. A .bib file is provided with the template in



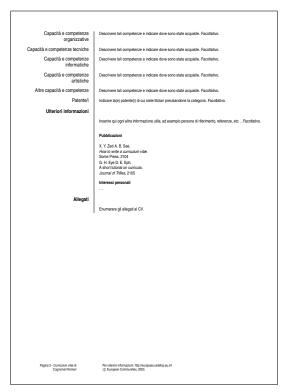


Figure 5: europecv class.

order to add the list of the publications. moderncy is the only class that provides a template to prepare a cover letter in the same style as the curriculum vitæ.

### 5 Outdated solutions

### 5.1 vita

Written by Andrej Brodnik in 1995, vita (see fig. 7) is a very simple but and now obsolete class. The structure is built from customized itemized lists (Degrees, Publications, etc.) which cover the main fields of scientific activity. Very few customization options are available and no guide comes with the package: some instructions and a template can be found directly in the .cls file.

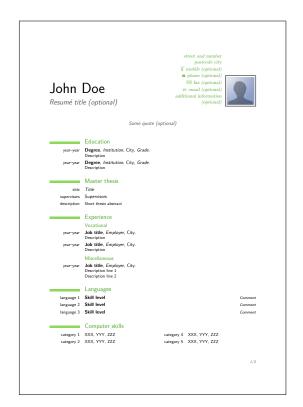




Figure 6: moderncv class.

### 5.2 CV

Written by Gilles Marcou and Antonio Pereira in 2004, CV (see fig. 8) is a package that modifies the article class with some non-standard code. The code required to write a curriculum vitæ with CV is complicated because the package does not provide many commands oriented to this task. Many regular environments, such as itemize, table, and minipage, are required to structure the document. This *de facto* solution eliminates any advantage in using a dedicated package. Moreover, the template that is provided with the package contains some elementary errors (the symbol \_ is not preceded by the necessary \, LaTeX instead of LATeX and so on). The final result is a good example of how *not* to write a curriculum vitæ (see fig. 8).

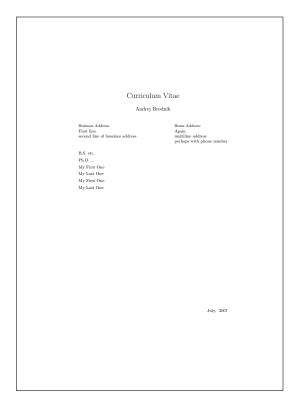




Figure 7: vita class.

Figure 8: CV package.

### 5.3 resume

resume is a small package written in 1987 by Stephen Gildea. It can be used to write a résumé with a simple and clear layout (see fig. 9). The package works as an extension to the article class providing many commands that are intuitive to use. Despite the presence of some obsolete commands (e.g. \bf instead of \textbf) and some esthetic limits, the package is still a good option.

### 5.4 res

res (see fig. 10) is a LAT<sub>E</sub>X2 $\varepsilon$  class written by Michael DeCorte in 1988 and is designed to prepare a résumé. It has non-standard code, its use is not advised.



Figure 9: resume package.

## 6 Customizing the style

Most of the available classes and packages have rigid logical structure and graphics which are sometimes inadequate for the user. The curriculum vitæ, unlike a journal paper or a technical report, is a document in which customized layout is often important.

Customization can be done by redefining the commands and adding packages to one of the available classes. The code of most classes and packages is not very complicated and their customization does not require LATEX and TEX experts. If you have good programming skills and a clear idea of the layout you want, the best solution is to start from scratch and create a package or a class (and contribute it to CTAN).

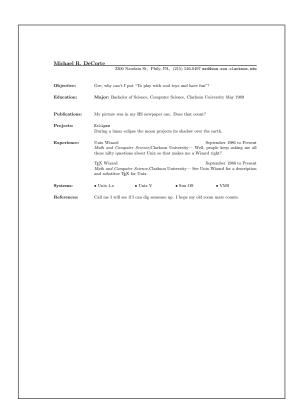




Figure 10: res class.

### 7 Conclusions

IATEX offers many good alternatives for composing a curriculum vitæ easily accessible even by beginners. In particular moderner and euroev use a modern syntax and are easily customizable. In addition they have a code structure which is completely compatible with IATEX2 $\varepsilon$ .

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