R-Ladies Zürich Creative CVs with RMarkdown

Wed 13.09.2022

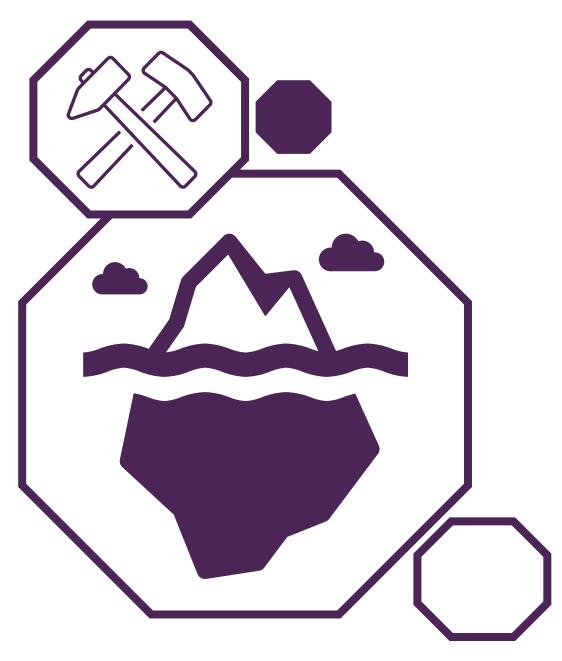
Outline of today's event

- 18.00 18.30: help to get started with R and RMarkdown
- 18.30 20.00: Main Event: Creative CVs with RMarkdown
 - Inputs and tips by Daniela Gunz
 - Hands on Session
- 20:00 ??: Let's Socialize!

R-Ladies Zürich: Where can you find us?

- Meetup: R-Ladies Zürich
- Slack: R-Ladies Zürich
- Linkedin: R-Ladies Zürich
- <u>Twitter</u>: R-Ladies Zürich





When was the last time you updated your CV?

Share with the people next to you!

Input by Daniela Gunz

R-Ladies Zürich Creative CVs with RMarkdown

Hands on Session Intro!

Let's Create a CV using RMarkdown!

- Main resources used to create todays session:
 - R-Ladies Melbourne YouTube video
 - Vitae package (Mitchell O'Hara Wild)
- → I am not an expert, but we can learn together!

R vitae package

 Provides templates to create CVs in RMarkdown



https://cran.r-project.org/web/packages/vitae/index.html

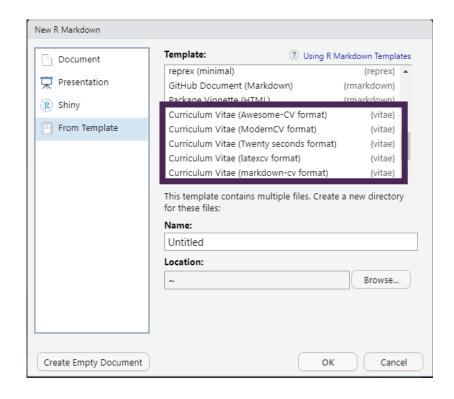
Package Installation

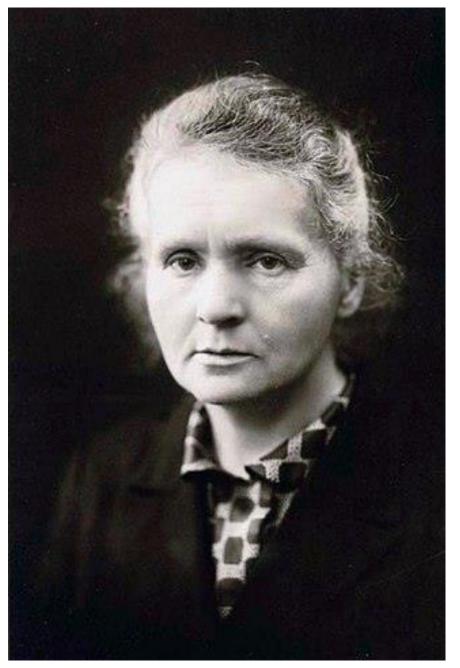
Install the vitae package

```
install.packages("vitae")
```

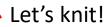
 This requires LaTeX to be installed on your computer.

```
install.packages("tinytex")
tinytex::install_tinytex()
```





Vitae package comes with an example



```
°C - 1 ■ Run - 1 - 1 = 1 A
                          Nnit 🕶 🌣 🕶
🛑 🗼 🛮 🔚 🖪 Knit on Save
 2 name: Marie
  3 surname: Curie
 4 position: "Professor"
 5 address: "School of Physics & Chemistry, École Normale Supérieure"
 6 phone: +1 22 3333 4444
  7 www: mariecurie.com
 8 email: "Marie.Curie@ens.fr"
 9 twitter: mariecurie
 10 github: mariecurie
 11 linkedin: mariecurie
12 date: "`r format(Sys.time(), '%B %Y')`"
 13 output: vitae::moderncv
                                                                                                                                                                                                *
17 knitr::opts chunk$set(echo = FALSE, warning = FALSE, message = FALSE)
 18 library(vitae)
 21 * # Some stuff about me
     * I poisoned myself doing research.
 * I was the first woman to win a Nobel prize
     * I was the first person and only woman to win a Nobel prize in two different sciences.
 27 ♥ # Education
29 v ```{r}
                                                                                                                                                                                              # ▼ ▶
 30 library(tibble)
 31 tribble(
      ~ Degree, ~ Year, ~ Institution, ~ Where,
      "Informal studies", "1889-91", "Flying University", "Warsaw, Poland",
      "Master of Mathematics", "1894", "Sorbonne Université", "Paris, France"
 36 ) %>%
      detailed_entries(Degree, Year, Institution, Where)
 40 ▼ # Nobel Prizes
```

```
📠 📗 🔳 Knit on Save
                    ABC 🔍 🌌 Knit 🕶 🌣 🕶
 name: Marie
 surname: Curie
 position: "Professor"
 address: "School of Physics & Chemistry, École Normale Supérieure"
 phone: +1 22 3333 4444
 www: mariecurie.com
 email: "Marie.Curie@ens.fr"
 twitter: mariecurie
 github: mariecurie
 linkedin: mariecurie
 date: "`r format(Sys.time(), '%B %Y')`"
 output: vitae::moderncv

'``{r setup, include=FALSE}

 knitr::opts_chunk$set(echo = FALSE, warning = FALSE, message = FALSE)
 library(vitae)
# Some stuff about me
  * I poisoned myself doing research.
  * I was the first woman to win a Nobel prize
  * I was the first person and only woman to win a Nobel prize in two differe
# Education
· ```{r}
library(tibble)
 tribble(
   ~ Degree, ~ Year, ~ Institution, ~ Where,
   "Informal studies", "1889-91", "Flying University", "Warsaw, Poland",
   "Master of Physics", "1893", "Sorbonne Université", "Paris, France",
   "Master of Mathematics", "1894", "Sorbonne Université", "Paris, France"
 ) %>%
  detailed entries(Degree, Year, Institution, Where)
# Nobel Prizes
```

Marie Curie

Professor

Some stuff about me

- I poisoned myself doing research.
- o I was the first woman to win a Nobel prize
- I was the first person and only woman to win a Nobel prize in two different sciences.

Education

- 1889-91 Informal studies, Flying University, Warsaw, Poland.
- 1893 Master of Physics, Sorbonne Université, Paris, France
- 1894 Master of Mathematics, Sorbonne Université, Paris, France.

Nobel Prizes

- 1903 $\,$ Nobel Prize in Physics. Awarded for her work on radioactivity with Pierre Curie and Henri Becquerel
- $1911\,$ Nobel Prize in Chemistry. Awarded for the discovery of radium and polonium

Publications

- O'Hara-Wild, M., & Hyndman, R. (2021). Vitae: Curriculum vitae for r markdown.
- Müller, K., & Wickham, H. (2022). Tibble: Simple data frames. https://CRAN. R-project.org/package=tibble

School of Physics & Chemistry, École Normale Supérieure

1 + 1 2 3 333 4444

Marie. Curie@ens. fr

mariecurie

mariecurie

mariecurie

mariecurie

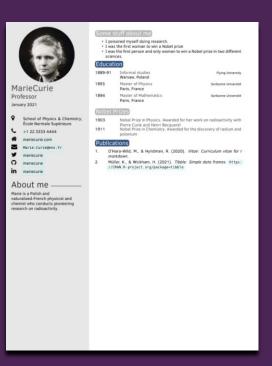
mariecurie

mariecurie









moderncv

awesomecv

hyndman

twentyseconds

```
■ Knit on Save
 name: Marie
 surname: Curie
 position: "Professor"
address: "School of Physics & Chemistry, École Normale Supérieure"
 phone: +1 22 3333 4444
 www: mariecurie.com
                                                                     Name, Personal Infos
email: "Marie.Curie@ens.fr"
twitter: mariecurie
 github: mariecurie
 linkedin: mariecurie
                                                                     Template control
date: "`r format(Sys.time(), '%B %Y')`"
output: vitae::moderncv
                                                                      (output)
  ``{r setup, include=FALSE}
knitr::opts_chunk$set(echo = FALSE, warning = FALSE, message = FALSE)
library(vitae)
# Some stuff about me
 * I poisoned myself doing research.
 * I was the first woman to win a Nobel prize
  * I was the first person and only woman to win a Nobel prize in two differe
# Education
....{r}
library(tibble)
 tribble(
  ~ Degree, ~ Year, ~ Institution, ~ Where,
```

"Informal studies", "1889-91", "Flying University", "Warsaw, Poland", "Master of Physics", "1893", "Sorbonne Université", "Paris, France", "Master of Mathematics", "1894", "Sorbonne Université", "Paris, France"

detailed entries(Degree, Year, Institution, Where)

«header» Marie **Curie**

School of Physics & Chemistry, École Normale Supérieur

□+12233334444 | Marie.Curie@ens.fr | #mariecurie.com | @mariecurie | @mariecurie | ymariecurie

Some stuff about me_

- I poisoned myself doing research.
- · I was the first woman to win a Nobel prize
- I was the first person and only woman to win a Nobel prize in two different sciences.

Education_

Flying University	Warsaw, Polanc
Informal studies	1889-9.
Sorbonne Université	Paris, France
MASTER OF PHYSICS	1893
Sorbonne Université	Paris, France
MASTER OF MATHEMATICS	189-

Nobel Prizes

	Awarded for h
	work
03 Nobel Prize in Physics	radioactivity wi
	Pierre Curie ar
	Henri Becquer
	Awarded for ti
11 Nobel Prize in Chemistry	discovery of radiu

Publications

- 1. O'Hara-Wild, M., & Hyndman, R. (2021). Vitae: Curriculum vitae for r markdown
- Müller, K., & Wickham, H. (2022). Tibble: Simple data frames. https://CRAN.R-project.org/packagetibble

SEPTEMBER 2022 MARIE CURIE · CURRICULUM VITAE

) %>%

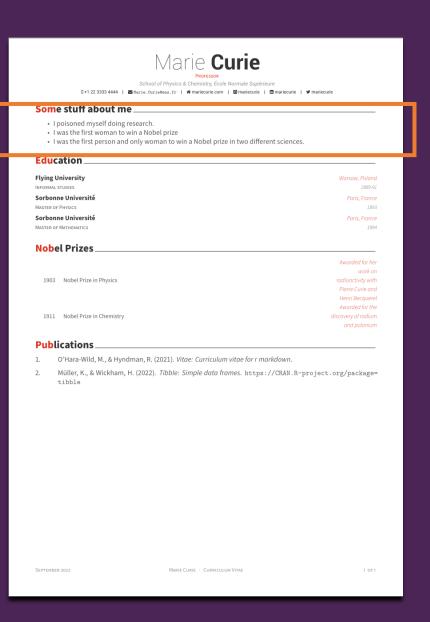
Nobel Prizes

```
📠 📗 🔳 Knit on Save
                    ABC 🦠 🌌 Knit 🕶 🌣 🕶
 name: Marie
 surname: Curie
 position: "Professor"
 address: "School of Physics & Chemistry, École Normale Supérieure"
 phone: +1 22 3333 4444
 www: mariecurie.com
 email: "Marie.Curie@ens.fr"
 twitter: mariecurie
 github: mariecurie
 linkedin: mariecurie
 date: "`r format(Sys.time(), '%B %Y')`"
 output: vitae::moderncv

'``{r setup, include=FALSE}
 knitr::opts_chunk$set(echo = FALSE, warning = FALSE, message = FALSE)
 library(vitae)
# Some stuff about me
  * I poisoned myself doing research.
  * I was the first woman to win a Nobel prize
  * I was the first person and only woman to win a Nobel prize in two differe
 # Education
. ···{r}
 library(tibble)
 tribble(
   ~ Degree, ~ Year, ~ Institution, ~ Where,
   "Informal studies", "1889-91", "Flying University", "Warsaw, Poland",
   "Master of Physics", "1893", "Sorbonne Université", "Paris, France",
   "Master of Mathematics", "1894", "Sorbonne Université", "Paris, France"
 ) %>%
   detailed entries(Degree, Year, Institution, Where)
```

Nobel Prizes

Title and bulletpoints



15

13/09/2022 R-Ladies Zürich: Creative CVs with RMarkdown

```
📶 📗 🔳 Knit on Save
                    ABC 🦠 🌌 Knit 🕶 🌣 🕶
 name: Marie
 surname: Curie
 position: "Professor"
 address: "School of Physics & Chemistry, École Normale Supérieure"
 phone: +1 22 3333 4444
 www: mariecurie.com
 email: "Marie.Curie@ens.fr"
 twitter: mariecurie
 github: mariecurie
 linkedin: mariecurie
 date: "`r format(Sys.time(), '%B %Y')`"
 output: vitae::moderncv

'``{r setup, include=FALSE}

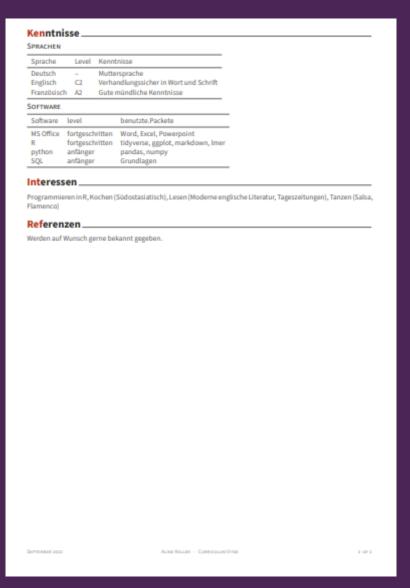
 knitr::opts_chunk$set(echo = FALSE, warning = FALSE, message = FALSE)
 library(vitae)
# Some stuff about me
  * I poisoned myself doing research.
  * I was the first woman to win a Nobel prize
  * I was the first person and only woman to win a Nobel prize in two differe
# Education
· ```{r}
library(tibble)
 tribble(
   ~ Degree, ~ Year, ~ Institution, ~ Where,
   "Informal studies", "1889-91", "Flying University", "Warsaw, Poland",
   "Master of Physics", "1893", "Sorbonne Université", "Paris, France",
   "Master of Mathematics", "1894", "Sorbonne Université", "Paris, France"
  detailed entries(Degree, Year, Institution, Where)
# Nobel Prizes
```

CV Section

Marie Curie School of Physics & Chemistry, École Normale Supérieure □+1 22 3333 4444 | Marie.Curie@ens.fr | # mariecurie.com | @ mariecurie | @ mariecurie | > mariecurie Some stuff about me I poisoned myself doing research. · I was the first woman to win a Nobel prize · I was the first person and only woman to win a Nobel prize in two different sciences. **Education** Flying University Sorbonne Université MASTER OF PHYSICS Sorbonne Université MASTER OF MATHEMATICS 1.00.4 **Nobel Prizes** 1903 Nobel Prize in Physics 1911 Nobel Prize in Chemistry **Publications** O'Hara-Wild, M., & Hyndman, R. (2021). Vitae: Curriculum vitae for r markdown Müller, K., & Wickham, H. (2022). Tibble: Simple data frames. https://CRAN.R-project.org/package= tibble SEPTEMBER 2022 MARIE CURIE · CURRICULUM VITAE

Our Example today:





Time to install the vitae package and get the example data!

- Install the vitae package install.packages("vitae")
- This requires LaTeX to be installed on your computer.

```
install.packages("tinytex")
tinytex::install_tinytex()
```



https://github.com/CST333/ CV_with_vitae

Overview

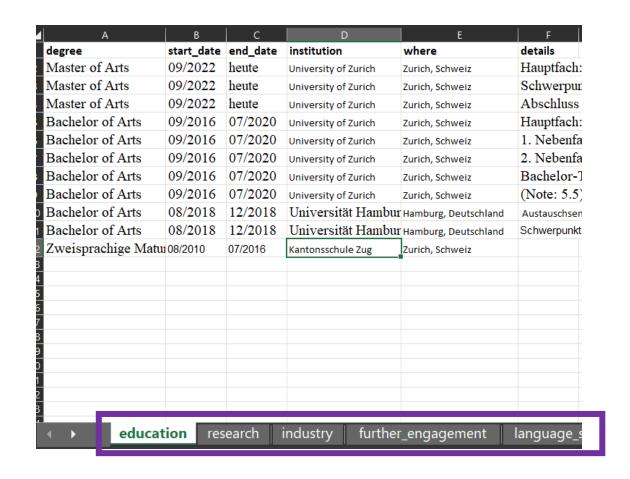
- 1: prepare your data in excel
- 2: read in your data
 - alternative for 1&2: write your data within the RMarkdown file
- 3: Create the Rmarkdown sections
 - detailed_entries
 - brief_entries
- 4: Add sections that are not done with vitae detailed_entries or brief_entries
- 5: Get creative with the header ©

Step 1: Prepare your data: The Sections

You can save all your data in one excel file, where each sheet is a different sections of your CV

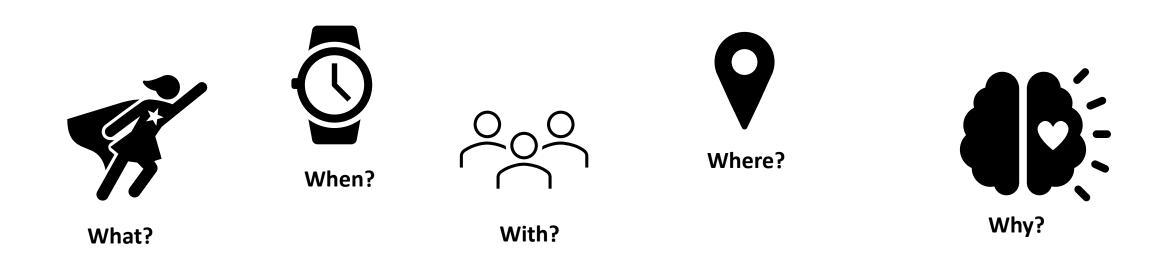
Our example includes:

- education
- research (empty)
- industry
- further_engagement
- language_skills
- IT_skills



Step 1: Prepare your data: The W's

Every section can be built with the same base information:



Step 1: Prepare your data: The W's

Every section can be built with the same base information:

What	When		With	Where	Why			
1 A	В	С	D	E	F	G	Н	1
degree	start_date	end_date	institution	where	details			
Master of Arts	09/2022	heute	University of Zurich	Zurich, Schweiz	Hauptfach	: Geschich	ite	
Master of Arts	09/2022	heute	University of Zurich	Zurich, Schweiz	Schwerpu	nkt: Gesch	ichte der N	euzeit
Master of Arts	09/2022	heute	University of Zurich	Zurich, Schweiz	Abschluss	geplant: J	uli 2022	
Bachelor of Arts	09/2016	07/2020	University of Zurich	Zurich, Schweiz	Hauptfach	: Geschich	ite	
Bachelor of Arts	09/2016	07/2020	University of Zurich	Zurich, Schweiz	1. Nebenf	ach: Publiz	zistik- und I	Kommunik
Bachelor of Arts	09/2016	07/2020	University of Zurich	Zurich, Schweiz	2. Nebenf	ach: Kunst	geschichte	
Bachelor of Arts	09/2016	07/2020	University of Zurich	Zurich, Schweiz	Bachelor-	Thesis: "D	er Einfluss	italieniscl
Bachelor of Arts	09/2016	07/2020	University of Zurich	Zurich, Schweiz	(Note: 5.5	<u>(</u>)		
Bachelor of Arts	08/2018	12/2018	Universität Hambur	Hamburg, Deutschland	Austauschse	mester		
Bachelor of Arts	08/2018	12/2018	Universität Hambur	Hamburg, Deutschland	Schwerpunk	t: Public Hist	ory	
Zweisprachige Matu	1 08/2010	07/2016	Kantonsschule Zug	Zurich, Schweiz				

Step 2: Read in the Excel into RMarkdown

```
{r, include=FALSE}
readExcelSheets <- function(filename){</pre>
 all <- readxl::excel sheets(filename)
 # import each sheet into a list using readxl::read_excel
 list <- lapply(all, function(x) readxl::read excel(filename, sheet = x))</pre>
 names(list) <- all</pre>
 # breaks up list and creates a dataframe for each sheet with df names matching sheet names
 list2env(list, envir = .GlobalEnv)
filename <- "./excel sheets/example data german.xlsx"
readExcelSheets(filename)
```

From R Ladies Melbourne ©

Step 2: Read in the Excel into RMarkdown

```
Data
👽 education
               11 obs. of 6 variables
   $ degree
                : chr [1:11] "Master of Arts" "Master of Arts" "Master...
   $ start date : chr [1:11] "09/2022" "09/2022" "09/2022" "09/2016" ....
   $ end date : chr [1:11] "heute" "heute" "heute" "07/2020" ...
   $ institution: chr [1:11] "University of Zurich" "University of Zur...
                : chr [1:11] "Zurich, Schweiz" "Zurich, Schweiz" "Zuri...
   $ where
   $ details
                : chr [1:11] "Hauptfach: Geschichte" "Schwerpunkt: Ges...
further engagement 4 obs. of 6 variables
● industry 7 obs. of 6 variables
IT skills 4 obs. of 3 variables
 language skills 3 obs. of 3 variables
                    0 obs. of 6 variables
 research
```

Step 1&2: Alternative way...

Write the data used in the sections directly in the markdown

From the template (Marie Curie)

Ausbildung.

University of Zurich

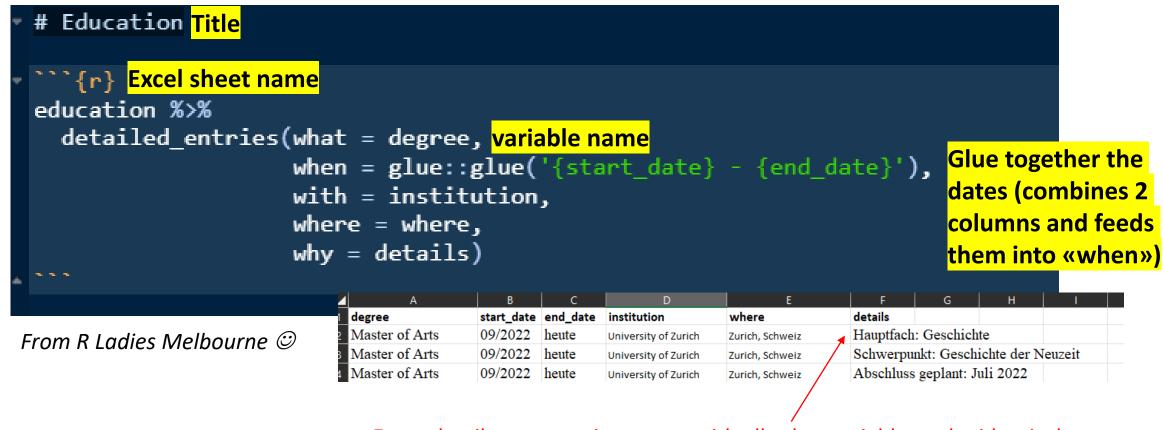
MASTER OF ARTS

· Hauptfach: Geschichte

Schwerpunkt: Geschichte der Neuzeit

Abschluss geplant: Juli 2022

Zurich, Schweiz 09/2022 - heute



Every detail entry requires a row with all other variables to be identical

Ausbildung

University of Zurich

MASTER OF ARTS

- · Hauptfach: Geschichte
- · Schwerpunkt: Geschichte der Neuzeit
- · Abschluss geplant: Juli 2022

Zurich, Schweiz 09/2022 - heute

Ausbildung____

University of Zurich

MASTER OF ARTS

· Hauptfach: Geschichte

- · Schwerpunkt: Geschichte der Neuzeit
- · Abschluss geplant: Juli 2022

⊿ A	В	С	D	E	F	G	Н	1
degree	start_date	end_date	institution	where	details			
Master of Arts	09/2022	heute	University of Zurich	Zurich, Schweiz	Hauptfach	: Geschich	te	
Master of Arts	09/2022	heute	University of Zurich	Zurich, Schweiz	Schwerpu	nkt: Gesch	ichte der N	euzeit
Master of Arts	09/2022	heute	University of Zurich	Zurich, Schweiz	Abschluss	geplant: J	uli 2022	

Zurich, Schweiz

09/2022 - heute

13/09/2022



⊿ A	В	С	D	E	F	G	Н	1
degree	start_date	end_date	institution	where	details			
Master of Arts	09/2022	heute	University of Zurich	Zurich, Schweiz	Hauptfach	: Geschich	ite	
Master of Arts	09/2022	heute	University of Zurich	Zurich, Schweiz	Schwerpu	nkt: Gesch	ichte der N	leuzeit
Master of Arts	09/2022	heute	University of Zurich	Zurich, Schweiz	Abschluss	geplant: J	uli 2022	

Ausbildung_

09/2022 - heute	Master of Arts	University of Zurich
09/2016 - 07/2020	Bachelor of Arts	University of Zurich
09/2019 -	Bachelor of Arts	Universität Homburg
08/2010 - 07/2016	Zweisprachige Matura (D/E)	Kantonsschule Zug

Filter out the duplicates if you have details

```
\cdots{r}
education[!duplicated(education[,1:2]),] %>%
  brief entries(what = degree,
                    when = glue::glue('{start_date} - {end_date}'),
                    with = institution)
  A tibble: 4 x 3
              vitae type: brief entries
      what
                                                                       when with
      Master of Arts
                                                             09/2022 - heute University of Zurich
      Bachelor of Arts
                                                          09/2016 - 07/2020 University of Zurich
                                                          08/2018 - 12/2018 Universität Hamburg
      Bachelor of Arts
      Zweisprachige Matura (D/E)
                                                          08/2010 - 07/2016 Kantonsschule Zug
  4 rows
```

Auchi	ldung	
When 09/2022 -	What=degree Master of Arts	With=institution University of Zurich
heute	Master Of Arts	Ornversity or Zantin
09/2016 -	Bachelor of Arts	University of Zurich
07/2020	Secretal Section Section 1. Section 2. Section 2.	Service and the service and th
08/2018 -	Bachelor of Arts	Universität
12/2018	Secretar Secret Secretaria Contra of the Secretaria Secre	Homburg
08/2010 -	Zweisprachige Matura (D/E)	Kantonsschule Zug
07/2016	rueishiariille isiamia (n) r)	Nortonia Schole Zug

⊿ A	В	С	D	E	F	G	Н	l l
degree	start_date	end_date	institution	where	details			
Master of Arts	09/2022	heute	University of Zurich	Zurich, Schweiz	Hauptfach	: Geschich	ite	
Master of Arts	09/2022	heute	University of Zurich	Zurich, Schweiz	Schwerpu	nkt: Gesch	ichte der N	leuzeit
Master of Arts	09/2022	heute	University of Zurich	Zurich, Schweiz	Abschluss	geplant: J	uli 2022	

- This could be used for e.g. obtained certificates (only one date in the when)
- One can glue together the what and the where.

Ausbildung

```
heute Master of Arts - University of Zurich
07/2020 Bachelor of Arts - University of Zurich
12/2018 Bachelor of Arts - Universität Hamburg
07/2016 Zweisprachige Matura (D/E) - Kantonsschule Zug
```

Step 4: Add sections you don't want to do with vitae

... as Bullet Points

```
# Persönliche Informationen* Geburtsdatum: 14. Oktober 1998* Nationalität: Schweizerin
```

Persönliche Informationen

- · Geburtsdatum: 14. Oktober 1998
- · Nationalität: Schweizerin

... as bibliography

bibliography_entries("papers.bib"))

... as Tables and Plots?

```
## Software
'``{r}
#IT_skills %>%
# brief_entries(when = software, what = main_packages_used)

software_skills <- kable(data.frame(IT_skills), format="latex", booktabs=TRUE)
software_skills
#glue::glue('{skill} : {level} , vertraut mit: {main_packages_used}'</pre>
```

SOFTWARE

software	level	Packete
MS Office	fortgeschritten	Word, Excel, Powerpoint
R	fortgeschritten	tidyverse, ggplot, markdown, lmer
python	anfänger	pandas, numpy
SQL	anfänger	Grundlagen

Step 5: Get creative with the header and add final details to the CV

In the yaml header

- Change the color
- Add an image
- Add a Statement / a Highlight
- Add your github, linkedin etc...

In the script

- Pagebreak
- Links

headcolor: 414141 # (no color)

profilepic: «/img/myprofile.png»

aboutme: «A highlight about me.»

linkedin: myname

\newpage

[My amazing thing](thelink.com)

Step 5: Get creative with the header and add final details to the CV

• Add your github, linkedin etc.. linkedin: yourname (link)

your link is more like: www.linkedin.com/in/your-namea0aa02435 ??



Modify your personal URL on the profile site



- ✓ We looked at the vitae template (Marie Curie)
- ✓ We looked at how to read in the data form an Excel sheet
- ✓ We looked at different secetions/elements that can be included in the CV

Some last words:

- Not every template works well for the amount of information you want to have in your CV.
- Adjusting size of existing templates is not so easy.
- Check out example CVs here: https://github.com/mitchelloharawild/vitae
- Keep in mind, that:
 - CVs might look different in different countries, examples you find might no be the recommended standard.
 - Many companies use automatic CV checks, thus yours should be readable by a computer.

Now it is your turn ©

- ☐ try to knit the example CV
 - □adjust the example to create your own CV

To wrap up today's session

• Share your creations with each other ©