LATEX compilers

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#### Outline

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#### Last time

- We learned about how LATEX uses figures and tables
- We also got started with some simple applications of graphics integration
- We took a peek at the massive graphics-generation package, tikz

#### This time

- We will learn about advanced LATEX configurations, such as compiler engines and font installation
- We will build this knowledge by learning how to build a resume
- In this, we will use a template provided by the site LATEX templates

- Go to http://www.latextemplates.com/template/ plasmati-graduate-cv
- Download the .tex file by clicking { Download .TeX }, and store the file somewhere you will be able to find easily
- Now, under Important Notes, go to the link for the Fonting package
- If you are a Mac user, click download under the PC (TTF) header
- If you are a PC user (Windows or Linux), click the download under the PC (Open Type) header

#### A first try

- Now, open the .tex file into your TEX Maker window, and compile
- What happens to your code?
- The code does not compile because of two reasons:
  - First, the document requires a more sophisticated LATEX compiler than the one you are using
  - Second, the Fontin package needs to be placed in the correct directory

## LATEX compilers

- Solving the compiler problem is easy!
- Now, the default compiler program for generating .pdf files from your .tex code is called pdflatex
- This is a very reliable compiler, and it's been around for decades
- Unfortunately, it lacks the capabilities for modern font typesetting, including the ability to handle the Fontin package
- Two more recent engine for compilation, X=ATEXand LuaATEX, allow you to take advantage of modern fonts

# Using X=ATEX

- In TEX Maker, go to Options and Configure TEX Maker
- In Configure TEXMaker, choose the Quick Build side tab
- On the right, you should see that by default TEX Maker uses the PdfLaTeX + View PDF option
- Change this to XeLaTeX + View PDF
- Now, every time you generate a .pdf file, you will do so using the sleeker X¬ATFX!

## Fontin installation (Mac users)

- Once the Fontin package is downloaded, open the corresponding folder in the Downloads directory
- There should be a series of .ttf files
- Move these files to \Macintosh HD\Libraries\Fonts
- LATEX should now be able to read the Fontin package, so try compiling your template now!

## Fontin installation (Linux users)

- Open a terminal window
- Type the following into the command line:

#### Linux installation

Overview

 You now should have the Fontin fonts in the correct director to be used by TEXMaker

#### Fontin installation (Windows users)

- Windows users should see the relevant font installation page for their particular operating system on the Microsoft site
- In X=ATEX fonts can be installed exactly as you would normal Windows fonts
- Go to the Install or uninstall fonts page for more information

## Using the template

- Now, try compiling the template now
- If everything worked correctly, you should be able to see a resulting .pdf output
- Let's take a look at how this program is structured
- Now at the beginning, there are a bunch of command declarations that are needed for the design specifications of the template
- You don't need to bother with these as of yet, so let's continue to inside the document environment

## Using the template

- Under NAME AND CONTACT INFORMATION, change the John Smith to your name
- Then, notice that the personal info is highlighted under a new section, and the actual text is stored in the tabular environment
- Remember, with tabular, you need the & symbol to divide between columns
- Fill in your personal details however you like

## Using the template

- For the rest of the document, go through and fill in the information you want to represent you in the various instances
- If a particular field doesn't have a lot of relevance to you, feel free to comment it out!
- Play around with font stylings, move sections around on the page, and tailor your design specifications to what looks best for you
- Protip: if you're not using this resume to apply for graduate school, then try to keep it to less than one page
- Good luck!