

How to thrive in grad school

Session 2: L^AT_EX

Y. Samuel Wang

Fall 2021

Introductions

What are some fall activities that you enjoy?



Figure: Cornell in Fall

Course goals

In this “class” I hope to ...

- Highlight what is important and worth investing your time to learn/develop
- Make space for questions
- Provide reference material

We will not ...

- Talk about actual statistical research topics
- Give step-by-step recipes for how to succeed

Roadmap and expectations

We will cover

- Session 1: Basics
- **Session 2: LaTeX**
- Session 3: Computing
- Session 4: How to learn from previous research
- Session 5: Starting your own research
- Session 6: Communicating your research to others
- Session 7: Possible career paths

Intro to L^AT_EX

- LaTeX is a document preparation system
 - Pronounced 'Lay-Tech' or sometimes just 'Tech'
 - Can be used as a noun/verb
 - Think of it as writing code, but it results in a document (often pdf)
 - Facilitates writing math
 - Standardizes formatting
 - Can also manage references
- When to use LaTeX
 - Some classes may require for homework
 - All statistics journals and ML conferences
 - Most presentations

Getting started

- Latex distribution (sort of like a compiler)
 - TeXLive (popular for Linux)¹
 - MikTeX (popular for Windows)²
 - MacTeX (popular for Macs)³
- Editor
 - TexStudio⁴, atom⁵
 - emacs, vim
- Cloud based LaTeX
 - Overleaf⁶

¹<http://tug.org/texlive/>

²<https://miktex.org/>

³<http://tug.org/mactex/>

⁴<https://www.texstudio.org/>

⁵<https://atom.io/>

⁶<https://www.overleaf.com>

Examples

<https://www.overleaf.com/read/mpcxcpmhyxjt>

Resources

- No shortage of online tutorials⁷
- arXiv will typically include source files (under other formats) that you can look at
- stackoverflow
- detexify⁸ gives

⁷<https://tobi.oetiker.ch/lshort/lshort.pdf>

⁸<http://detexify.kirelabs.org/classify.html>

Thriving in grad school: Mental Health

- May 2020 survey of US-based STEM PhD students showed that 40% reported symptoms consistent with generalized anxiety disorder and 37% with major depressive disorder⁹
 - New environment, lack of prior support structure
 - Imposter syndrome
 - New expectations, ambiguity
 - Financial difficulty
 - Worry about future
- No easy fix, but you are not alone
- Take time to prioritize well-being
 - Non-academic social activities¹⁰
 - Exercise¹¹
 - Sleep and eat healthy
 - Get help when you need it¹²

⁹<https://escholarship.org/uc/item/80k5d5hw>

¹⁰<https://scl.cornell.edu/get-involved/campus-activities/student-organization-directory>

¹¹<https://recreation.athletics.cornell.edu/>

¹²<https://health.cornell.edu/services/mental-health-care>

Questions

- What topics would you like to cover?
- Are there resources you've found helpful so far that you'd like to share?

Homework

- Setup a L^AT_EX distribution and editor (see slide 6)
- Install R and Rstudio ¹³

¹³<https://www.datacamp.com/community/tutorials/installing-R-windows-mac-ubuntu>