How to Thrive as a PhD Student

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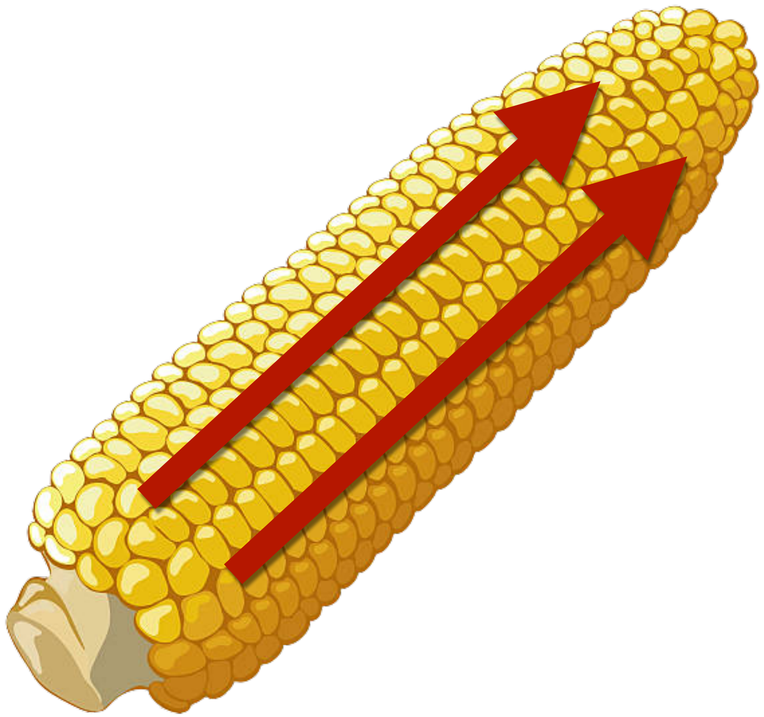
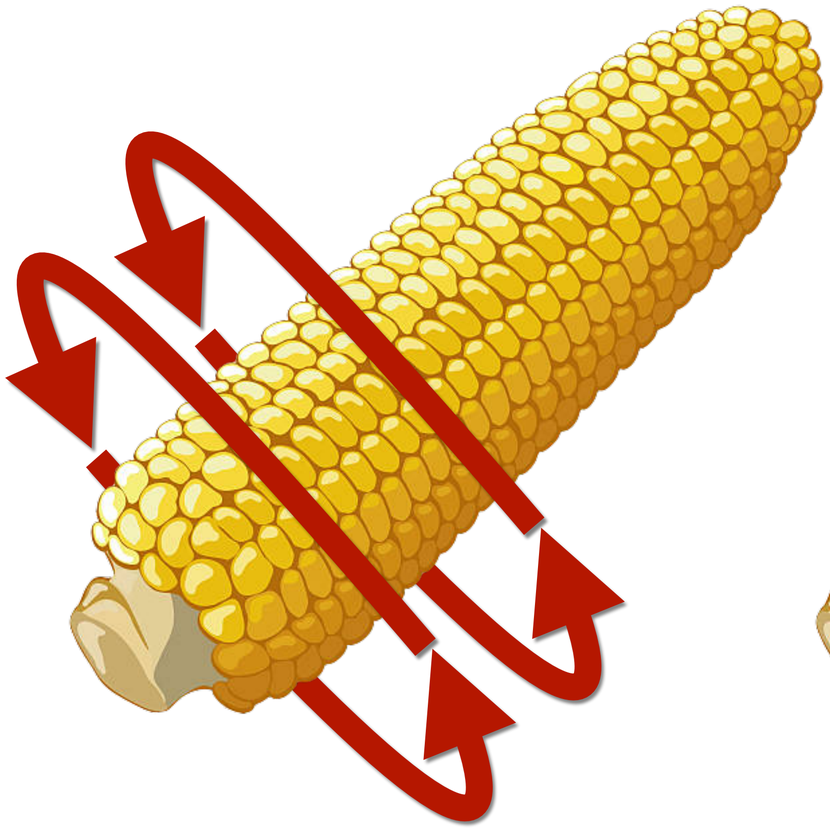
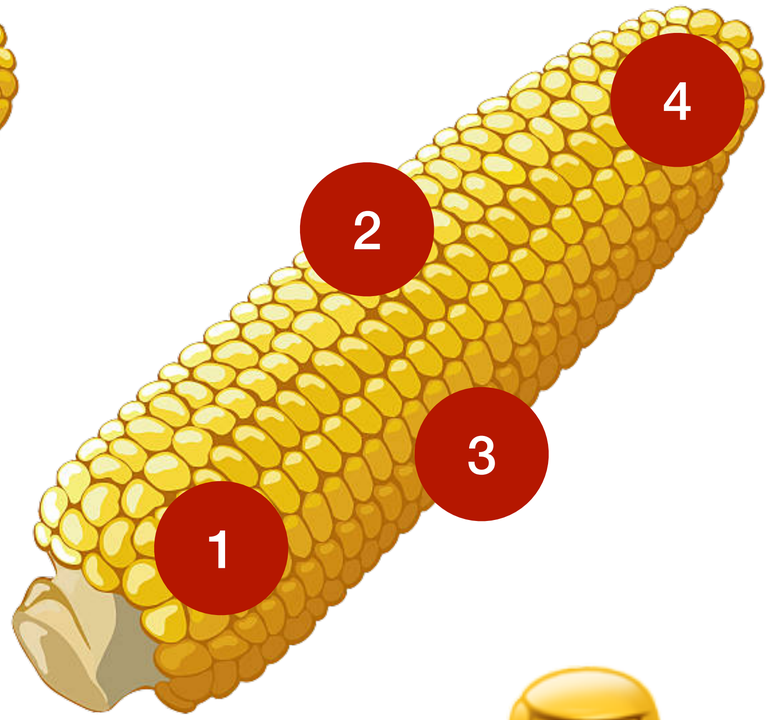
PLMW 2023
Seattle

No Right or Wrong Way







(Under→)Grad Mentality

- undergrad: classes are **necessary**
- grad: classes??
  - **unavailable:** rapidly approaching frontier of human knowledge
  - if available, an **investment**
- **be aware of time+energy expenditure**
- be aware of your personal reward system
  - constant small rewards?
  - infrequent big rewards?

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	😓	🥳	😓	😓	🥳	
	🥳	😓	🥳	🥳	😓	
	😓	🥳	...	...	...	

Sunday Monday Tuesday Wednesday Thursday Friday Saturday
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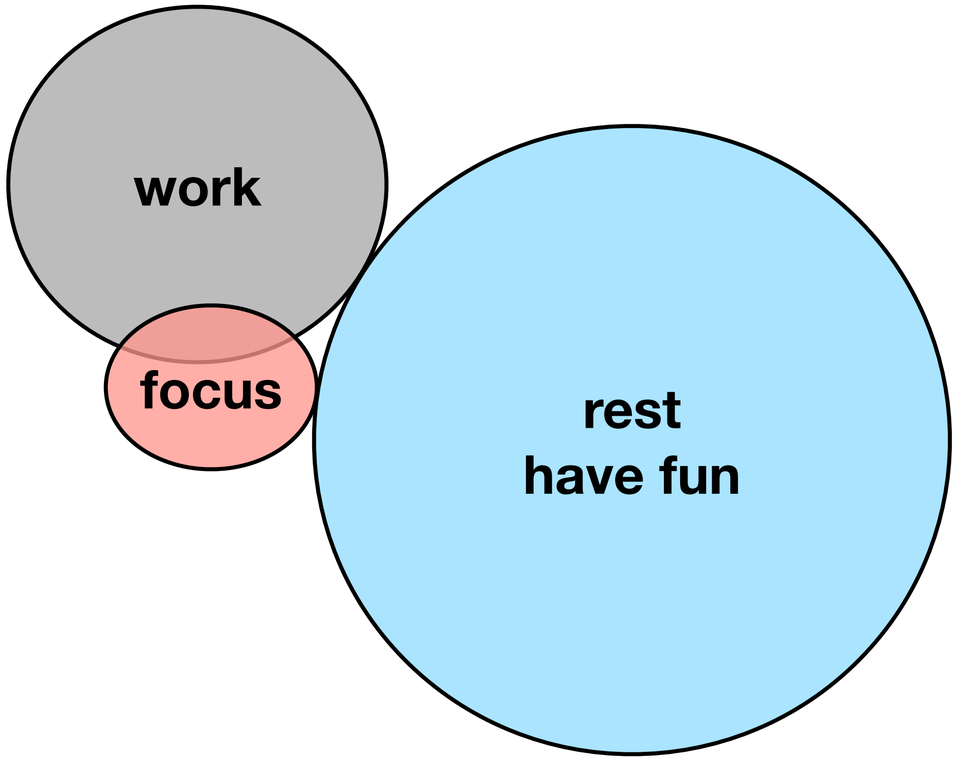
Sunday Monday Tuesday Wednesday Thursday Friday
Sunday Monday Thursday Friday Saturday
Friday Saturday

Meaningful Measure of Daily Progress

- if deadline is 6 months away, how to measure progress?
  - daily progress ≠ publish paper / solve problem / prove theorem / fix bug
  - daily progress = **time+energy expended**
- “I got stuck on the proof yesterday. Today I spent X hours on it, but still stuck”
  - daily progress? **YES**
- feel tired? **done for today.**
  - Go eat some food!
  - Go for a walk!
  - Go play games!
- deadline arrives and you’re not done? **that’s fine.**

Find Your Hours

- **focus hours:**
  - e.g. complex proof,
    debug something nasty,
    paper meat
- **working hours**:
  - e.g. respond to emails,
    scheduling, meetings
- outside of work/focus hours, **you have a job**:



DON’T WORK

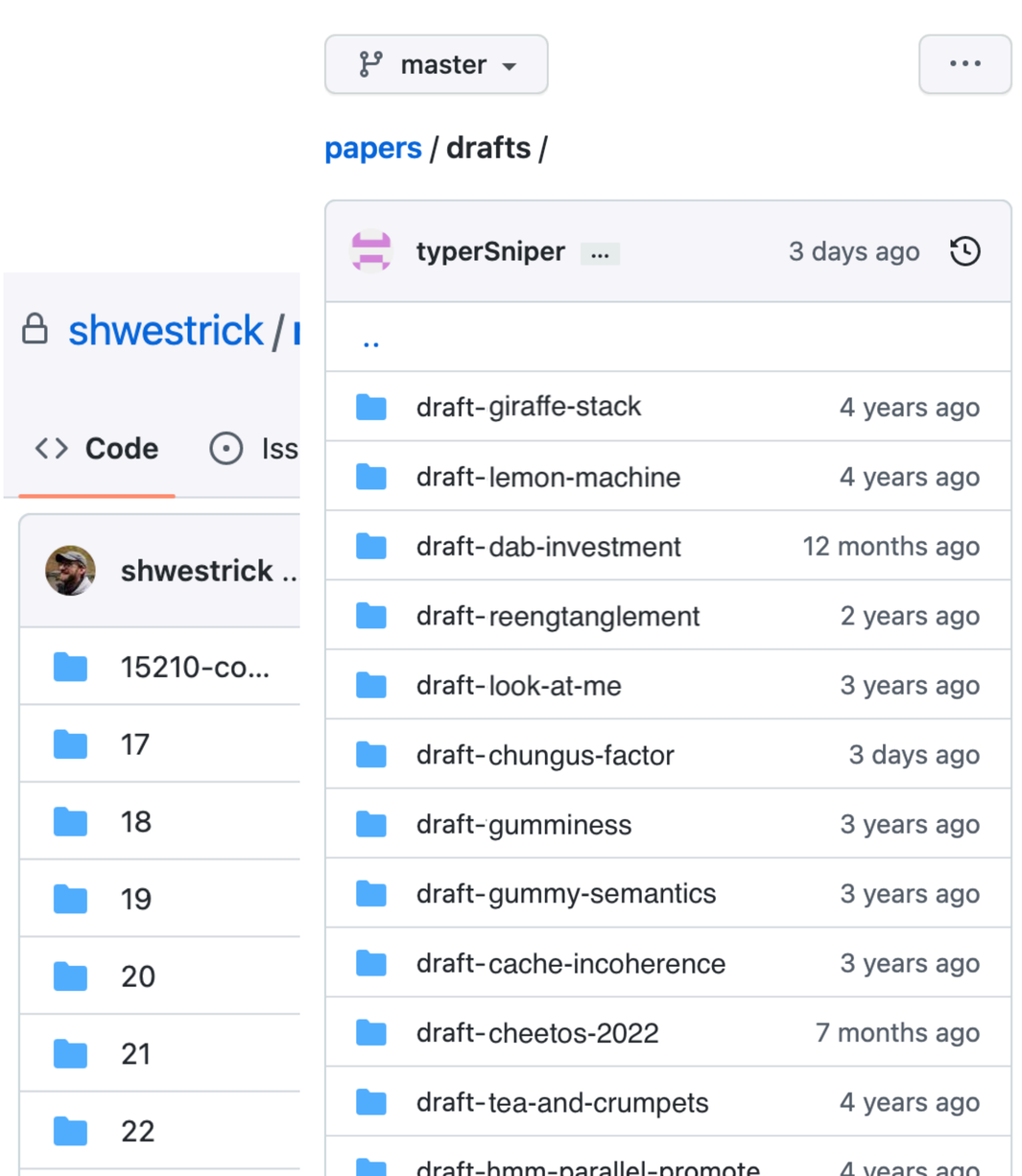
What Kind Of Work Is This?

- before spending a lot of time on something, **ask yourself**:
  - is this personal enrichment?
  - is this “just engineering”?
  - is this **research**?

Projects Projects Projects

- don’t over-invest in one project
  - 2 projects is nice!
    - lead one
    - help out with another
  - if stuck on one, work on another

- create environments for incremental progress
  - running notes, the braindump document
  - “just make the damn repo”
  - **EMBRACE THE CHAOS**



Managing Expectations

- perfectionism can be...
  - **useful**: get good work done
  - **rewarding**: feel pride in good work done
  - **unhealthy**: impose unrealistic expectations on self
  - **toxic**: impose unrealistic expectations on others
- it's **okay** to make mistakes
- warm fuzzy typos

me, circa 2018. advisor's office.
one week before deadline.
(dramatized)

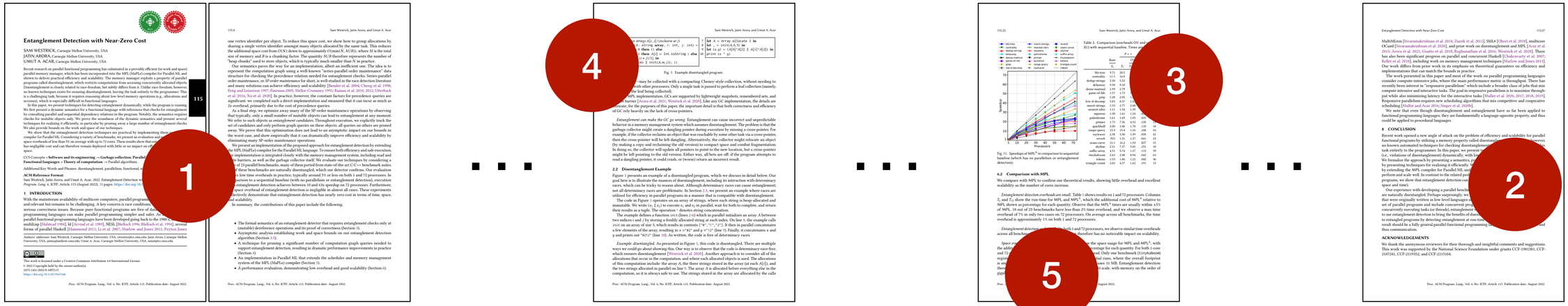
Response Repertoire

- don’t know how to answer a question?
- **no problem. just be honest:**
  - “We haven’t looked into that yet, but we plan to.”
  - “I’ve thought about this, and couldn’t figure out X.”
  - “I’m not familiar with that. Could you send me more info about it later?”

your own journey is valid

Writing Tips

- no two people will read your paper the same way
  - reader A: skims to get the gist
  - reader B: introduction, conclusion... done
  - reader C: a bit from each section, out-of-order
  - reader D: research paper? Nah, this is a novel.
- goal: give each reader **something to keep them going**



Thanks! 👋