Add citations, links, annotations for relevant literature, resources, communities, etc.

Foundations for Curating Research Software (must-cite literature)

- Barker, M., Chue Hong, N. P., Katz, D. S., Lamprecht, A.-L., Martinez-Ortiz, C., Psomopoulos, F., Harrow, J., Castro, L. J., Gruenpeter, M., Martinez, P. A., & Honeyman, T. (2022). Introducing the FAIR Principles for research software. Scientific Data, 9(1), Article 1. https://doi.org/10.1038/s41597-022-01710-x
- Research Software Engineering with Python (The Alan Turing Institute): Research Software Engineering with Python — Research Software Engineering with Python (alan-turing-institute.github.io)

Conceptualizing Research Software

- Defining Research Software: a controversial discussion (https://doi.org/10.5281/zenodo.5504016)
- Defining Roles of Research Software (https://upstream.force11.org/defining-the-roles-of-research-software/)

Software Licensing

- Morin, A., Urban, J., & Sliz, P. (2012). A Quick Guide to Software Licensing for the Scientist-Programmer. PLOS Computational Biology, 8(7), e1002598. https://doi.org/10.1371/journal.pcbi.1002598
- Stodden, V. (2009). The Legal Framework for Reproducible Scientific Research: Licensing and Copyright. Computing in Science Engineering, 11(1), 35–40. https://doi.org/10.1109/MCSE.2009.19
- OSI's open source definition (https://opensource.org/definition-annotated/)
- TLDR Legan (useful guide for comparing the characteristics of different licenses https://tldrlegal.com/)
- Copyright Guide for Scientific Software: https://www.softwarepreservationnetwork.org/wp-content/uploads/2020/03/Copyright_Guide_for_Scientific_Software_12172019.pdf

Documentation best practices

READMEs

- A guide for READMEs: https://www.welcometothejungle.com/en/articles/btc-readme-documentation-best-practices
- A browser-based template for READMEs: https://www.makeareadme.com/
- R-specific README guide https://github.com/benmarwick/rrtools
- Python-specific README guide https://www.pyopensci.org/python-package-guide/documentation/repository-files/readme-file-best-practices.html
- Cornell README template (for data): https://data.research.cornell.edu/content/readme

Research Software Engineering Practices (in general):

- "Software Engineering Practices in Academia: Promoting the 3Rs—Readability, Resilience, and Reuse": https://hdsr.mitpress.mit.edu/pub/f0f7h5cu/release/2

Dependency Management (overview of the challenge)

- Blog post by Noah Brenowitz https://www.noahbrenowitz.com/post/2021-version-pinning/

- Beaulieu-Jones, B., Greene, C. Reproducibility of computational workflows is automated using continuous analysis. *Nat Biotechnol* **35**, 342–346 (2017). https://doi.org/10.1038/nbt.3780
- Blog post by Alex Remedios (Python-specific, some interesting thoughts on pinning dependencies) https://towardsdatascience.com/devops-for-data-science-making-your-python-project-reproducible-f55646e110fa

Empirical studies of research software

- The Rise of GitHub in Scholarly Publications: https://link.springer.com/chapter/10.1007/978-3-031-16802-4_15
- A large-scale study on research code quality and execution https://www.nature.com/articles/s41597-022-01143-6

Tools and Standards for Research Software & Reproducibility

- CodeMeta - metadata standard (https://codemeta.github.io/user-guide/)
- Software Heritage Archive - code repository (https://archive.softwareheritage.org)
- ReproZip! - packaging reproducible bundles (https://www.reprozip.org/)
- Zenodo - general purpose repository with github integration (https://zenodo.org)
- Git / GitHub / GitLab
- BinderHub - platform for sharing reproducible code (https://binderhub.readthedocs.io)
- Singularity
- WholeTale (https://wholetale.org/)
- Poetry (Poetry - Python dependency management and packaging made easy (python-poetry.org)
- Renv for R
- Sinfo for Python (https://pypi.org/project/sinfo/)

Relevant Communities, Organizations, and Projects

- Software Sustainability Institute (https://www.software.ac.uk/)
- Software Preservation Network (https://www.softwarepreservationnetwork.org/)
- Software Heritage (https://www.softwareheritage.org/)
- US Research Software Engineering Association (https://us-rse.org/)
- Carpentries (https://carpentries.org/)
- Force11 (https://force11.org/)
- Journal of Open Source Software (https://joss.theoj.org/)
- The Turing Way (https://the-turing-way.netlify.app/welcome)
- PyOpenSci (https://www.pyopensci.org)
- Cornell's "Results Reproduction" project : https://socialsciences.cornell.edu/research-support/R-squared
- Johns Hopkins Data Science "Reproducibility In Cancer Informatics" https://jhudatascience.org/Reproducibility_in_Cancer_Informatics/index.html.

Programming languages commonly used in research (and observed in curation workflows)

- General Overview (MATLAB, Python, R)
    - https://medium.com/@mygreatlearning/programming-languages-for-data-science-python-vs-r-vs-matlab-d3bfd04c991e
- Codecademy- Python (https://www.codecademy.com/resources/blog/what-is-python-used-for/)
- Codecademy- R (https://www.codecademy.com/resources/blog/what-is-r-used-for/)
- Coursera - Python (https://www.coursera.org/articles/what-is-python-used-for-a-beginners-guide-to-using-python)

- MATLAB Introductions:
    - https://cimss.ssec.wisc.edu/wxwise/class/aos340/spr00/whatismatlab.htm
    - https://www.simplilearn.com/tutorials/matlab-tutorial/what-is-matlab-introduction-for-beginners
- MATLAB in chemical and petrochemical research: https://www.mathworks.com/solutions/chemicals-and-petrochemicals.html
- Association for Psychological Science: https://www.psychologicalscience.org/observer/why-you-should-become-a-user-a-brief-introduction-to-r
- American Psychological Association: https://psycnet.apa.org/record/2014-21523-009