Resources for Psychology Graduate Students

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You can find the full information for each section on the website:

http://bit.ly/psych_grad_resources

or on the Penn State Psychology GitHub repository:

http://bit.ly/psych-grad-resources_github

The linked repository includes details as to why each Sin is important to keep in mind when collecting, analyzing, and storing data. The repository also includes more information on each of the software listed below, and links to tutorials.

Deadly Sins of the Modern Data Scientist

- Data Collection
    - Failure to Log Abnormalities Immediately
    - Failure to Record System Specifications
    - Using Undescriptive or Uninformative Variable and File Names
- Data Storage
    - Unstructured File Organization
    - Storing Altered Data Files / Overwriting Original Data File
    - Altering Data Files Without Documentation
    - Saving Files in a Proprietary Format
    - Improper Data Backup and File Versioning
- Data Analysis
    - Manually Altering Data Point(s)
    - Saving Results without Saving Analysis Steps

Resources

- **Experimental Software**
    - OpenSesame (http://osdoc.cogsci.nl)
    - PsychoPy (http://www.psychopy.org)
    - jsPsych (http://www.jspsych.org)
    - PsyToolkit (http://www.psytoolkit.org)
    - Qualtrics (https://pennstate.qualtrics.com/)
- **Statistical & Visualization Software**
    - R and RStudio (https://cran.r-project.org)
        * Rmarkdown (https://rmarkdown.rstudio.com/)
        * Shiny (https://shiny.rstudio.com/)
    - Octave (https://www.gnu.org/software/octave/)
    - Plotly (https://plot.ly
    - Tableau (https://www.tableau.com)
- **Text Editors**
    - ATOM (https://atom.io)
    - Sublime Text (https://www.sublimetext.com)
    - LaTex and TexStudio (https://www.latex-project.org)
- **Versioning**
    - git & GitHub (https://git-scm.com; https://github.com)

- – Box (https://box.psu.edu)
- **Image/Video Manipulation**
  - – GIMP - Graphical Image Manipulation Program (https://www.gimp.org)
  - – Inkscape (https://inkscape.org/en/)
  - – ImageMagick (https://www.imagemagick.org/script/index.php)
  - – XnConvert (http://www.xnview.com/en/xnconvert/)
  - – ffmpeg (https://www.ffmpeg.org)
- **Citation Managers**
  - – Mendeley (https://www.mendeley.com)
  - – Zotero (https://www.zotero.org)
  - – JabRef (http://www.jabref.org)
  - – Papers (http://www.readcube.com/papers/)
  - – EndNote (https://endnote.com/)
- **Penn State Resources**
  - – PASS and Personal Webspace (Homepage: https://explorer.pass.psu.edu/)
  - – WebApps (https://webapps.psu.edu)
  - – Adobe Creative Cloud Suite (https://www.adobe.psu.edu/creative-cloud/)
  - – Microsoft Office for Students (http://software.psu.edu/news/microsoft-no-cost-software)
  - – Institute for CyberScience Advanced CyberInfrastructure (https://ics.psu.edu/advanced-cyberinfrastructure/)
  - – PSU Library Free Book Scanning (https://libraries.psu.edu/services/technology-equipment/scanners)
  - – PSU Library Free 3D Printing (https://makercommons.psu.edu/technologies/3d-printing/)

Other Resources

- Penn State Psychology Slack Channel (psu-psychology-forum.slack.com)
- Penn State Data Science Website (https://psu-psychology.github.io/data-science-and-reproducibility/)
- Penn State Data Science Google Group (https://groups.google.com/forum/#!forum/psu-psychology-data-science)
- Penn State Psychology GitHub Repo (https://github.com/psu-psychology)
- Penn State's 2019 R Bootcamp (https://psu-psychology.github.io/r-bootcamp-2019/)
- Penn State's QuantDev Tutorials Page (https://quantdev.ssri.psu.edu/tutorials)
- Programming for Psychologists (https://crumplab.github.io/programmingforpsych/)
- Data Visualization for Data Science (http://socviz.co/index.html)