



# FALL 2021 MINI-COURSES AND WORKSHOPS

[researchcomputing.princeton.edu/workshops](https://researchcomputing.princeton.edu/workshops)

PICSciE and OIT Research Computing will offer instructor-led training sessions (some in-person, some via Zoom) on the following topics:

**INTRO TO THE LINUX COMMAND LINE**

**INTRO TO DATA ANALYSIS (USING R & PYTHON)**

**INTRO TO PROGRAMMING USING PYTHON**

**GETTING STARTED WITH THE RESEARCH COMPUTING CLUSTERS**

**SOFTWARE CONTAINERS WITH DOCKER & SINGULARITY**

**INTRO TO VERSION CONTROL USING GIT**

**HOW TO MAKE EFFECTIVE PLOTS**

**REMOVE THE TEDIUM FROM YOUR RESEARCH WORKFLOW**

**MACHINE LEARNING FOR YOUR RESEARCH**

**INTRO TO R GRAPHICS PACKAGE: ggplot2**

**LEVERAGING THE NVIDIA A100 GPU FOR HPC AND AI**

**INTRO TO FIELD PROGRAMMABLE GATE ARRAYS (FPGAs)**

**SCIENTIFIC VISUALIZATION**

**MIXING PYTHON AND COMPILED CODE**

**CONTINUOUS INTEGRATION & AUTOMATED SOFTWARE TESTING**

**SECURE RESEARCH AT PRINCETON: SOCIAL SCIENCES**

**GEOGRAPHIC INFORMATION SYSTEMS (GIS)**

Workshops on QGIS and ArcGIS Pro:

<https://library.princeton.edu/collections/pumagic/workshops>

**Pre-recorded virtual training sessions are available at [researchcomputing.princeton.edu/workshops](https://researchcomputing.princeton.edu/workshops)**

- Using the Research Computing Clusters & the Cloud
- Programming in R, Python, MATLAB
- High-Performance Computing (HPC)
- Research Software Engineering
- Git and Github
- Improving Your Computing Workflow
- Machine Learning
- Visualization

**Organized by Princeton Research Computing, a consortium of campus groups led by the Princeton Institute for Computational Science & Engineering (PICSciE) and OIT Research Computing**

Participating Departments: Program in Applied & Computational Mathematics, Geosciences, Operations Research & Financial Engineering, Data & Statistical Services, Molecular Biology, IRIS-HEP Software Institute, Office of Population Research, Princeton Plasma Physics Laboratory, University Library, and Princeton Research Data Service

To register, and for more information, visit: [researchcomputing.princeton.edu/workshops](https://researchcomputing.princeton.edu/workshops)