# ArcGIS Pro Python Programming Online Tutorial with Indiana Remote Sensing Dataset

***Gang Shao,*** Purdue University (gshao@purdue.edu )

   **Content**:  ArcGIS Pro is a popular platform to visualize and map remote sensing data. Python programming is one of the most popular skills for data science and geospatial analysis. The recently launched ArcGIS notebook leverage the advantages of both ArcGIS Pro and Python Programming and makes it convenient to create live python code and apply interactive geospatial data analysis and visualization. The ArcGIS notebook provides flexibilities on data analysis combination and possibilities of processing algorithm customization, which, therefore, brings the ArcGIS Pro into another level in geospatial analysis. In this project, we developed an online tutorial to introduce python programming using ArcGIS notebook from scratch to 1). Introduce ArcGIS notebook to students, K-16 educators, and publics with interest; 2). Promote the geospatial data science education in Indiana; 3). Promote the use of Indiana geospatial data in open education resources.

   The developed online tutorials highlighted:

- Varied python environments in ArcGIS Pro and how to setup and customize ArcGIS notebook environment

- Essential python libraries for data science and geospatial analysis with/without ArcGIS Pro

- Interactive programming and mapping with ArcGIS notebook using Indiana regional climate dataset

- Multiple ways to access python programming in ArcGIS Pro other than ArcGIS notebook

## FOR FURTHER READING:

Online tutorial of Python Programming with ArcGIS Pro:

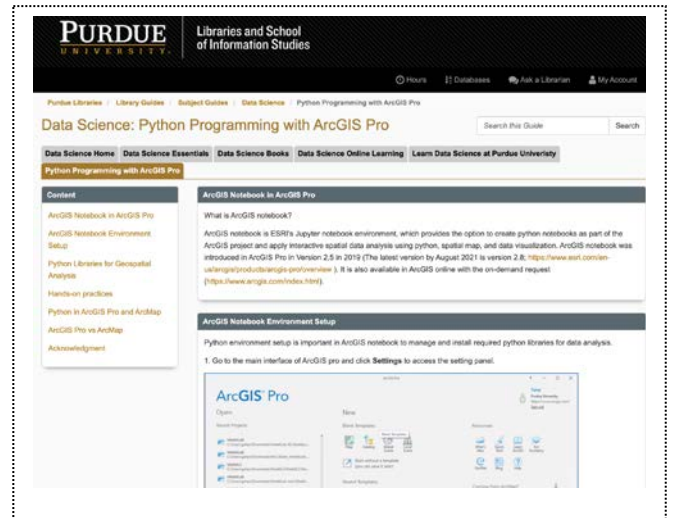https://guides.lib.purdue.edu/DataScience/ArcGISPro



**Figure 1.**  The overview of the online tutorial of Python Programming with ArcGIS Pro. The tutorial is available on Purdue Data Science Libguides (link available in the further reading section).
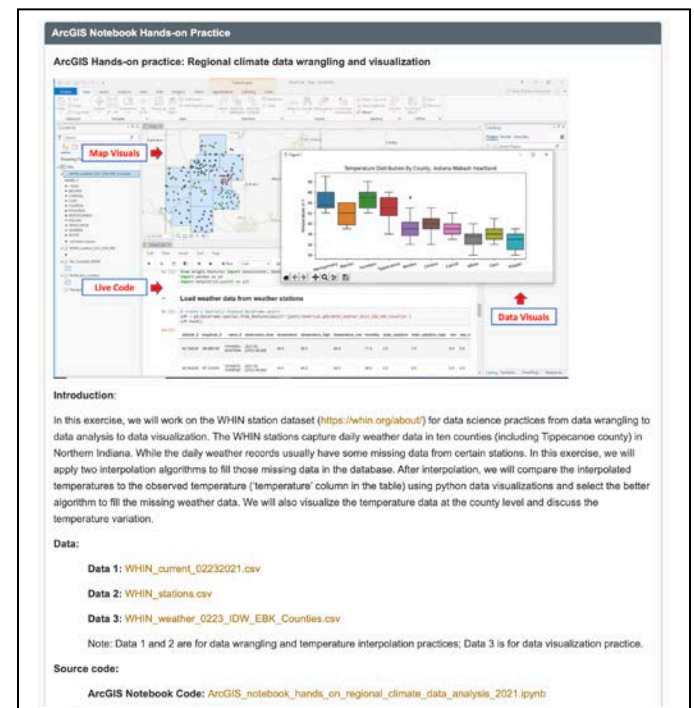


**Figure 2.**  The hands-on practice of ArcGIS notebook in the tutorial for data wrangling and visualization using Indiana regional climate data.