Training the GIS Professional

Introduction to Administering your Portal using the ArcGIS API for Python - 2 days

Overview

Administration covers all sorts of activities from identifying what content is available in a portal, who owns it, who can get access to it, creating and managing users, uploading and validating your new content, to managing services on a GIS Server.

The list of topics which come under the title of administration are many and varied.

This course will build upon your existing Python skills and knowledge of your ArcGIS Portal to provide you with the necessary skills to administer your Portal using the ArcGIS API for Python.

Who should attend

- GIS Professionals
- GIS Technical Leads
- GIS Analysts
- Data Managers
- System Administrators
- Data Managers
- System Administrators

Goals

- Become familiar with the Jupyter Notebook developer environment.
- Understand how to navigate the API Reference.
- Perform core administration of your portal.
- Learn how to search and query content within your portal.
- Work with portal items, users and groups.
- Investigate upload and export workflows of content.
- Perform data validation and cleansing through the Python pandas module and the Esri Spatially Enabled DataFrame.
- Introduce the concepts surrounding Deep Learning.
- Introduce supporting Python modules to aid your administration tasks, such as matplotlib, zipfile and glob.

Prerequisites

Attendance of "Getting Started with the Python Scripting Language" course (or equivalent knowledge) and a working understanding of either ArcGIS Enterprise or ArcGIS Online is a necessity. Knowledge of ArcGIS Pro would be an advantage

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Topics Covered

- Introducing the ArcGIS API for Python: What is the ArcGIS API for Python? API communication; Installing the API; How do you access the API?

- Introducing Notebooks: ArcGIS Notebook installed with ArcGIS Pro; Portal Notebooks; Jupyter Notebook; Notebook UI; Types of cell, Creating markdown; Executing code in the cells.

- Understanding the SDK. An overview of the ArcGIS API for Python; What is the gis module?; The GIS() class; Using the GIS class to understand the API reference; the map widget.

- Searching for portal items: The GIS Resource Manager classes; Using the search() method; The search() method's query argument; Searching for content; Investigating your search results; Searches based upon dates.

- Visualising your analysis using the matplotlib module: Administration capabilities, Managing portal members; Creating and managing groups; Managing content in your portal; Managing GIS servers in your Enterprise; Administration samples; Visualising your analysis using matplotlib.

- Publishing and creating content: Adding data to your organisation; Publishing to your portal through ArcPy; Extracting data from your portal; Working with Attachments; Adding Items to your Portal; Create a Hosted Feature Service; Sharing your content to others; The zipfile module.

- Exploratory Data Analysis: Working with the pandas module; Creating a pandas DataFrame; Pandas DataFrame members; Correcting issues in the DataFrame; Introducing the Esri Spatial DataFrame; Managing a Spatially Enabled DataFrame; Members found on Accessor classes.

- Introducing Deep Learning**: Artificial Intelligence, Machine Learning & Deep Learning; Applying Deep Learning in the spatial world; A recommended Deep Learning workflow; Esri Deep Learning models; Installing ArcGIS Pro Deep Learning libraries; The arcgis.learn module; Using the arcgis.learn module.

** This is an optional section. Please ask your instructor to cover this section at the end of the course.