ArcGIS API for Python

Level: Advanced
Duration: 12 h

About: ArcGIS API for Python is a Python library for performing GIS visualization and analysis, spatial data management, and GIS system administration tasks that can run both in an interactive fashion and using scripts.

LESSONS

[ArcGIS API for Python – Edistyneen analyytikon ja järjestelmän ylläpitäjän rajapinta ArcGIS-alustalle (esri.fi)](#)

- Duration: 8 mins
- About: ArcGIS API for Python on ArcGIS-alustalle rakennettu Python-kirjasto, jonka avulla ArcGIS Onlinessa tai Portal for ArcGIS -ohjelmistossa olevia resursseja voi helposti käyttää kevyeen tai hieman raskaampaankin ohjelmointiin - erityisesti työnkulkujen automatisointiin. Esri Finlandin asiantuntija Tommi Terävä kertoi ArcGIS API for Pythonista demon kera maaliskuussa 2021 järjestetyssä Esri Finland Live Stream -tilaisuudessa.
- **NOTE: This video is only available in Finnish.**

[ArcGIS: Python Overview | Esri Training Video](#)
- Duration: 45minutes
- About: The Python programming language is a cornerstone of ArcGIS. The ArcPy and the ArcGIS API for Python libraries provide access to unparalleled functionality for solving geographic problems. Presenters show how the two python libraries fit together, and how you can use python to do more in areas of data management, visualization and spatial data science.

[ArcGIS API for Python: An Introduction | Esri Training Video](#)

- Duration: 1 hr
- About: In this session, you will learn how Python API can help in scripting and automating your Web GIS. It will start with an introduction of the API, who it's for, and what it can do. The session will walk through the process of obtaining the API through ArcGIS Pro and Anaconda. In addition, setting up an IDE to write scripts or using the Jupyter Notebook. A brief tour of the API will be followed by a show and tell of some of the powerful capabilities of the API.

[ArcGIS API for Python: An Introduction to the Modules | Esri Training Video](#)

- Duration: 45 minutes
- About: Python API empowers administrators, content publishers, analysts and data scientists to script and automate their workflows. In this fast paced session, we will cover a number of different modules in the API that you can use to work with feature layers, imagery layers, perform geocoding, directions analysis, geoenrichment etc.

[ArcGIS API for Python for Analysts and Data Scientists | Esri Training Video](#)
- Duration: 1hr
- About: Python has positioned itself as a programming language for data exploration and analysis with its rich ecosystem of libraries such as NumPy, SciPy, Pandas, Matplotlib, Scikit-Learn, etc. and IDEs such as Jupyter notebooks. Python API follows suit in being your library for comprehensive analyses of geospatial data. In this

talk, you will learn how to use the Python API to tap into the geospatial component of your big data, analyze and visualize spatial patterns in interactive Jupyter notebooks and work with other data analysis libraries to solve real-world problems.

[Working with Raster Data Using Python | Esri Training Video](#)
- Duration: 1hr
- About: The integration of map algebra with Python, and the ability to execute analytical tools in ArcPy opened a new dimension for raster analysis, data management, and the automation of workflows. Using real-world examples, this session will include an introduction to the Spatial Analyst and Image Analyst ArcPy modules, best practices for using the raster object and classes to expand your modeling capability, using raster functions to optimize performance, and various ways to extend your analytical capabilities.

EXERCISES

[Introduction to ArcGIS API for Python | Esri Training Web Course](#)
- Duration: 30 mins
- About: This course introduces numerous spatial capabilities available in ArcGIS API for Python.

[ArcGIS Notebooks Basics | Esri Training Web Course](#)
- Duration: 1 hr
- About: This course introduces you to the ArcGIS Notebooks interface and functionality for creating Python notebooks that perform spatial data analysis tasks.
- Requirements: ArcGIS Pro 3.1

[Get started with Python in ArcGIS Pro | Learn ArcGIS](#)
- Duration: 30 mins
- About: In this lesson, you will write code to determine the number of features for all the feature classes in the workspace. This also introduces some of the basics of Python syntax. You will write code in the Python window in ArcGIS Pro. Code can be exported to a Python script, which be opened, modified, and run outside of ArcGIS Pro.
- Requirements: ArcGIS Pro Advanced 3.1

[Accessing Data in a Portal Using ArcGIS API for Python | Esri Training Web Course](#)
- Duration: 1 hr
- About: This course shows you how to connect to a portal and access data using the API.
- Requirements: ArcGIS Pro 3.1, ArcGIS Online

[Python Scripting: Modifying Layer Properties | Esri Training Web Course](#)
- Duration: 1 hr 50 minutes
- About: In this course, you will learn how to write code to reference layer properties for viewing or modification.
- Requirements: ArcGIS Pro 3.1

[Performing Analysis Using ArcGIS API for Python | Esri Training Web Course](#)
- Duration: 1 h 30 mins
- About: This course introduces the analysis capabilities available in the API and demonstrates the process for integrating them into your apps.
- Requirements: ArcGIS Pro 3.1, ArcGIS Online (Publisher role).

[Creating Python Scripts for Raster Analysis | Esri Training Web Course](#)
- Duration: 1 hr
- About: This course discusses creating a raster object, accessing its properties, and using them in your Python scripting
- Requirements: ArcGIS Pro 3.1, ArcGIS Spatial Analyst, ArcGIS Online

---