



GEOG653 – Spatial Analysis



Lecture 1

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Jianguo (Jack) Ma

Department of Geographical Sciences
University of Maryland at College Park



Outline

- Course Overview
- Introduction to GIS
 - A case study of emergency management using spatial analysis
- Introduction to ArcGIS Pro
 - What's New
- Introduction to ArcGIS Online (AGOL)
 - Connection to Desktop ArcGIS
 - Analysis Capabilities of AGOL
- Demo



Announcements

- Updates on ELMS
 - Syllabus
 - Assignments
 - Exercises
 - Lab assignments
 - Final project
 - Modules
 - Useful Information
 - Lecture slides
 - Video archives of lectures and lab sessions
 - Discussion Forums



Course Overview

- About the Students
- About the Instructor
- About the Course



Course Overview

- About the Students
 - Discussion forums on ELMS
 - General questions/suggestions about the class
 - Questions about the lab assignments
 - Questions about the exercises
 - Questions about the final project



Course Overview

- About the Instructor

- Name: Jianguo (Jack) Ma, *Ph.D.*
- Office: 2181F LeFrak
- Email: jma3@umd.edu
- Phone: (301) 405-3861
- Office Hours: 3:00pm-5:00pm, Tuesdays (additional hours by appointments)



Course Overview

- About the Course
 - Lectures & Lab Sessions
 - Date & Time: 5:30-7:30pm, Mondays and Tuesdays
 - Link to the Virtual Classroom on WebEx:
<https://umd.webex.com/umd/j.php?MTID=meca3bc52903ad677c513f509aa295ec0>
 - All lectures and lab sessions are video-archived and then posted on ELMS.



Course Overview

- About the Course
 - Objectives
 - Grading and Assignments
 - Textbooks
 - Software
 - Topics
 - Rules & Policies



Course Overview

- About the Course

- Objectives

- Develop a **systematic** understanding of those most common spatial analysis methods
 - Analysis of point, line, network, areal, surface, and 3D data
 - Gain an **in-depth** knowledge of spatial analysis
 - Knowing how to use software tools is not enough.
 - Using various tools creatively and efficiently is important
 - Need to know the mathematics of certain spatial analysis methods (For example: Moran's I)
 - Become proficient with the **most updated** software solutions
 - Practicing the latest software such as ArcGIS Pro, ArcGIS Online, and open source QGIS is essential.



Course Overview

- About the Course
 - Grading & Assignments
 - 11 exercises (optional)
 - 8 lab assignments (80%) (mandatory)
 - Final project (20%)
 - Proposal: 5%
 - Poster: 15%



Course Overview

- About the Course
 - Textbooks
 - (Optional) Michael J Smith, Michael F Goodchild (Author), Paul A Longley, *Geospatial Analysis: A Comprehensive Guide*, 6th edition, The Winchelsea Press, 2018
 - (Optional) *Getting to Know ArcGIS Pro*, ISBN: 9781589484573, 2016
 - (Optional) Mitchell, Andy. *The ESRI Guide to GIS Analysis*, Volume 2. ESRI Press, 2005.



Course Overview

- About the Course
 - Software
 - ArcGIS Pro 2.6
 - Free license
 - ArcGIS 10.8
 - Free installation on your own computer
 - Free access in the labs
 - Free access through VMWare server
 - » See the posted instructions
 - ArcGIS Online
 - Free access (same login as ArcGIS Pro)
 - Business Analyst
 - Other non-commercial software or applications
 - QGIS, GeoDa



Course Overview

- About the Course
 - Topics
 - Fundamental Spatial Analysis
 - Point Pattern Analysis
 - Line Data Analysis
 - Network Analysis
 - Areal Analysis
 - Surface Analysis
 - 3D Analysis
 - Applications of Spatial Analysis
 - **ArcGIS Pro**
 - **ArcGIS Online**
 - **QGIS, GeoDa**



Course Overview

- About the Course
 - Rules & Policies
 - Attendance
 - Strongly encouraged but not required
 - Academic integrity
 - Lab assignments and final project should be completed individually and independently
 - Deadlines and extensions
 - Students with Disabilities
 - Others (see Syllabus)



Introduction to GIS

- Definitions
- Conceptual Framework
- Why is GIS important?
- What can you do with GIS?
 - A case study of emergency management using GIS



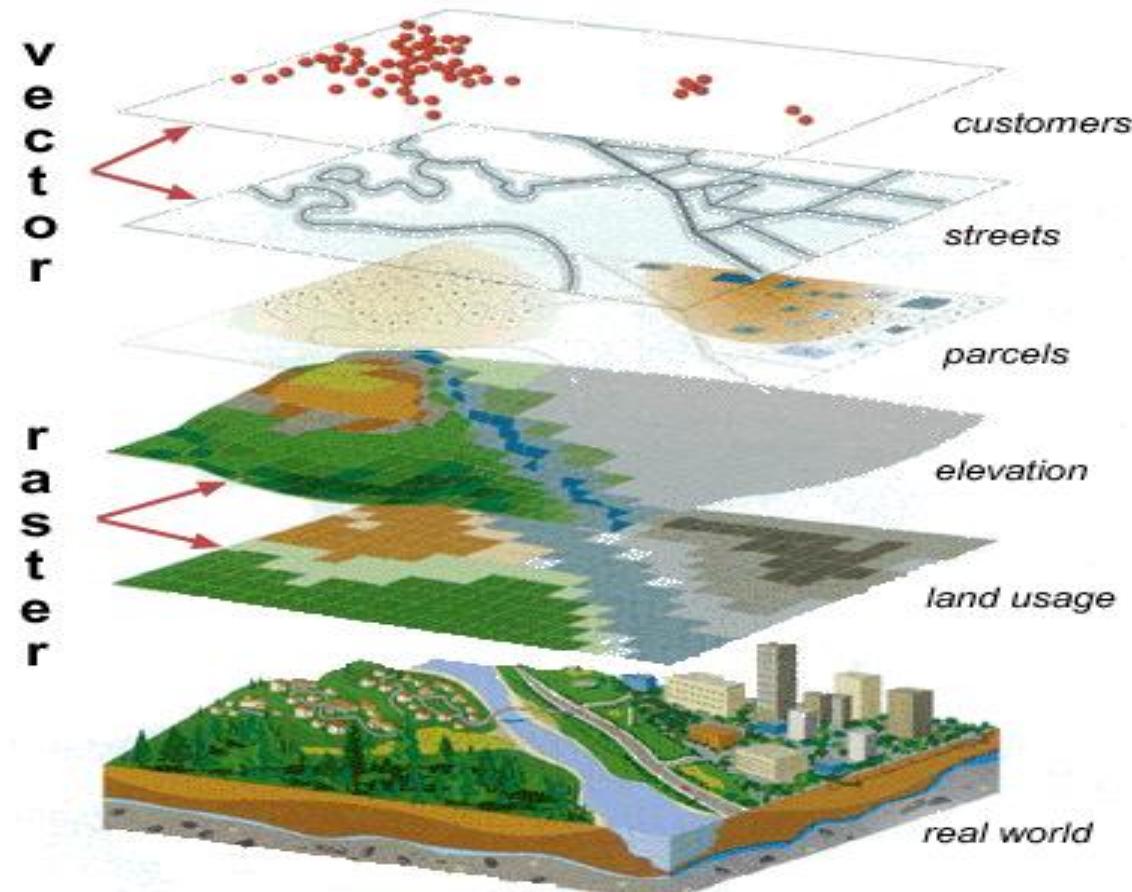
Introduction to GIS

- Definitions
 - My favorite definition (*by U.S. Fish and Wildlife Service*): An organized collection of computer hardware, software, geographic data, and personnel designed to efficiently capture, store, update, manipulate, analyze, and display all forms of geographically referenced information.



Introduction to GIS

- Conceptual Framework





Introduction to GIS

- Why is GIS important?
 - A database management tool
 - A building block of the digital world
 - Essential to eGovernment
 - An effective communication tool
 - Visualization and presentation
 - A powerful analytical tool
 - A consistent framework for analyzing various geographical data (RS, GPS, CAD, etc.)
 - Strong analytical capabilities (spatial analysis, network analysis, terrain analysis, 3D analysis, etc.)



Introduction to GIS

- What can you do with GIS?
 - Anything with a spatial component
 - Applications
 - Environmental research
 - Agriculture
 - Military
 - Emergency planning / public health
 - Natural resource management
 - Business development / Community design
 - Utility management
 - Anthropology / Archaeology
 - Others



Introduction to GIS

- What can you do with GIS?
 - A case study of emergency management
 - Truck accident on busy I-495 while transporting hazard chemical materials
 - Location: I-495 in the area of Springfield, VA
 - High density population
 - » Evaluation
 - » Evacuation
 - High traffic volume
 - » Redirecting traffic



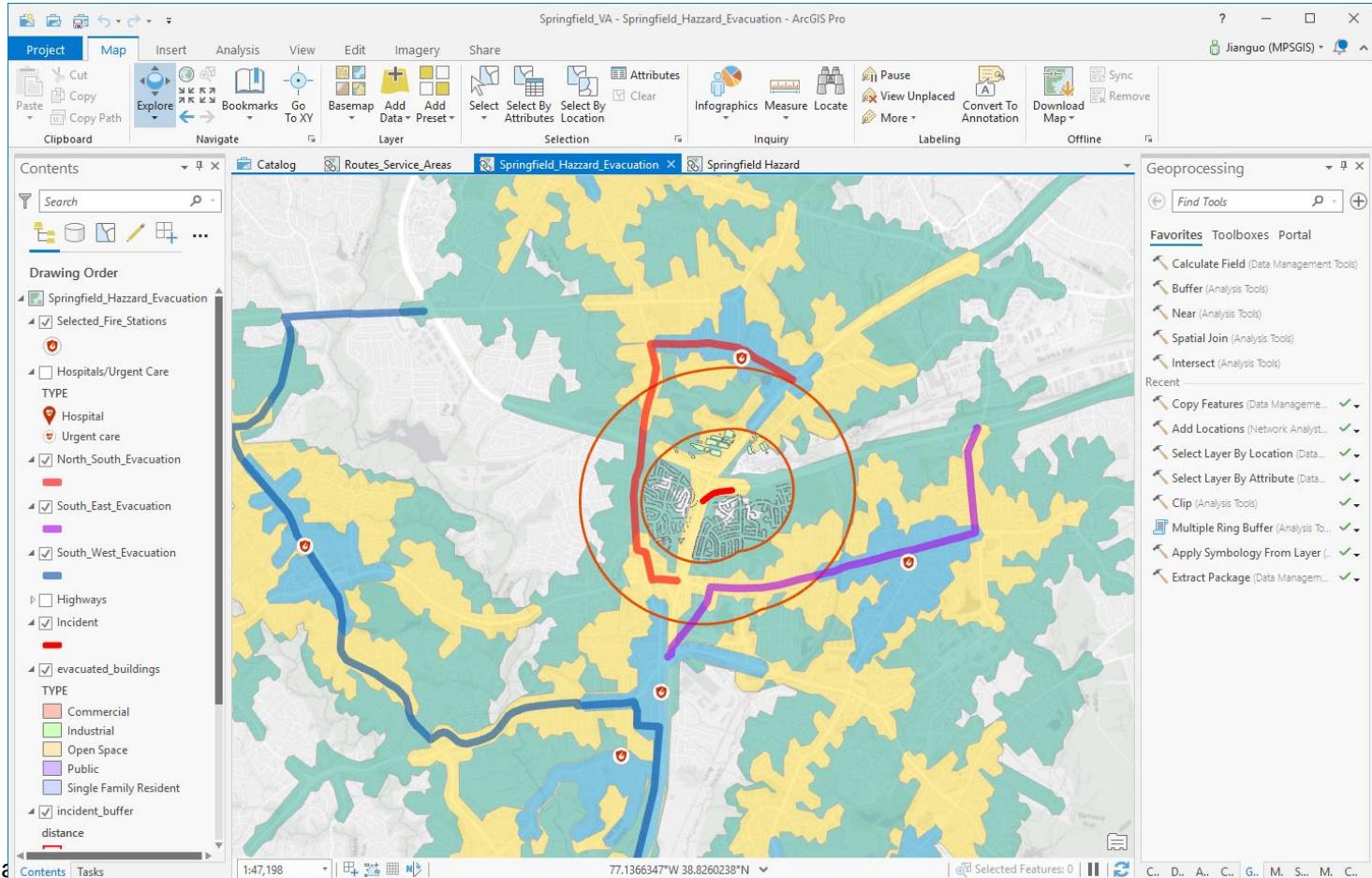
Introduction to GIS

- What can you do with GIS?
 - A case study of emergency management
 - Every step involving GIS:
 - Evaluate the situation to get the big picture
 - » Identify people and infrastructure that might be affected
 - » Identify emergency resources (e.g. nearby fire stations, hospitals, police stations, etc.)
 - Find solutions to mitigate the issues
 - » Evacuate people at high risk
 - » Divert traffic
 - Share data and information with decision makers and the public timely and widely
 - » Web GIS maps
 - » Mobile/Web GIS apps



Introduction to GIS

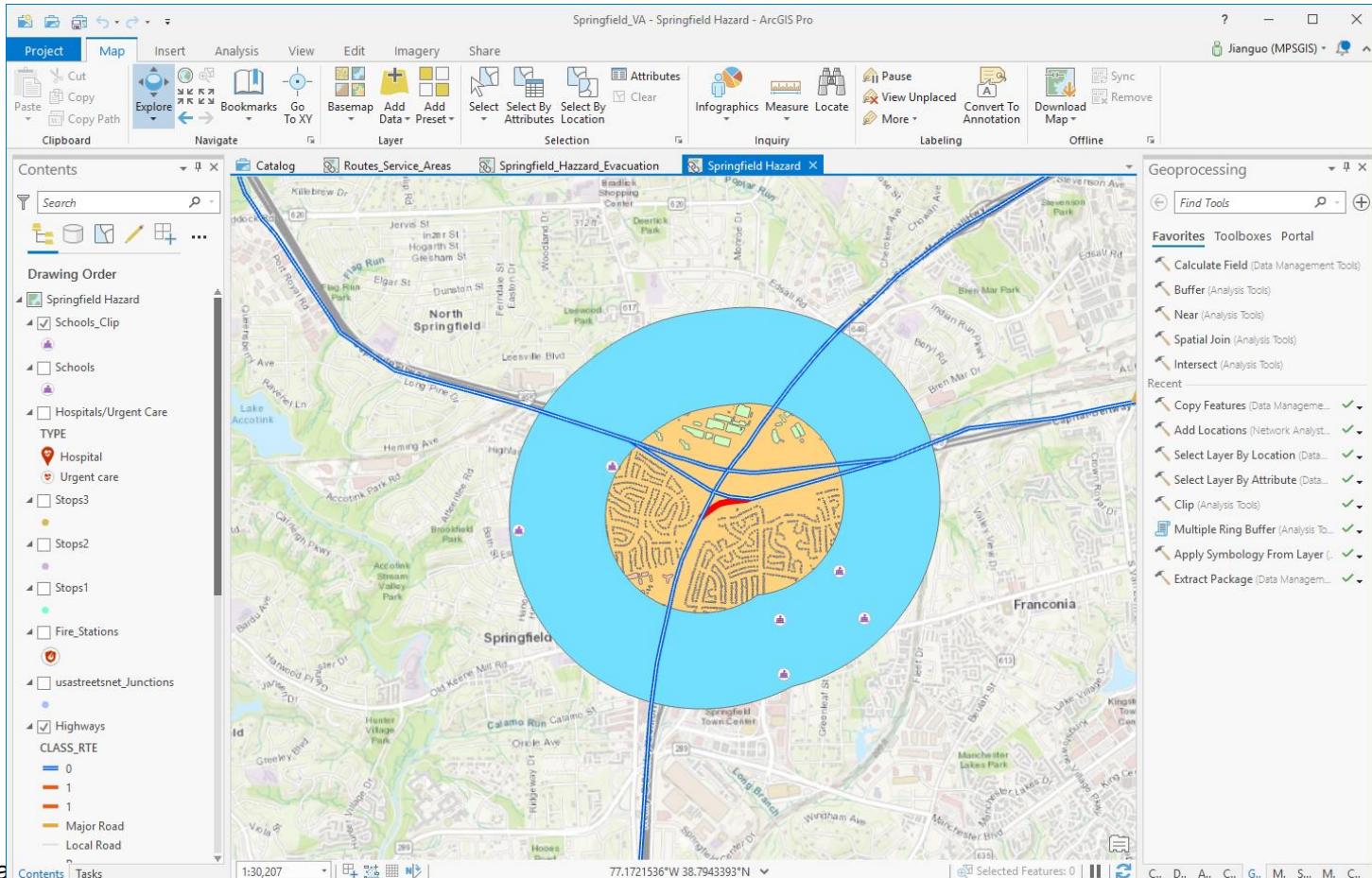
- What can you do with GIS?
 - A case study of emergency management
 - Evaluation





Introduction to GIS

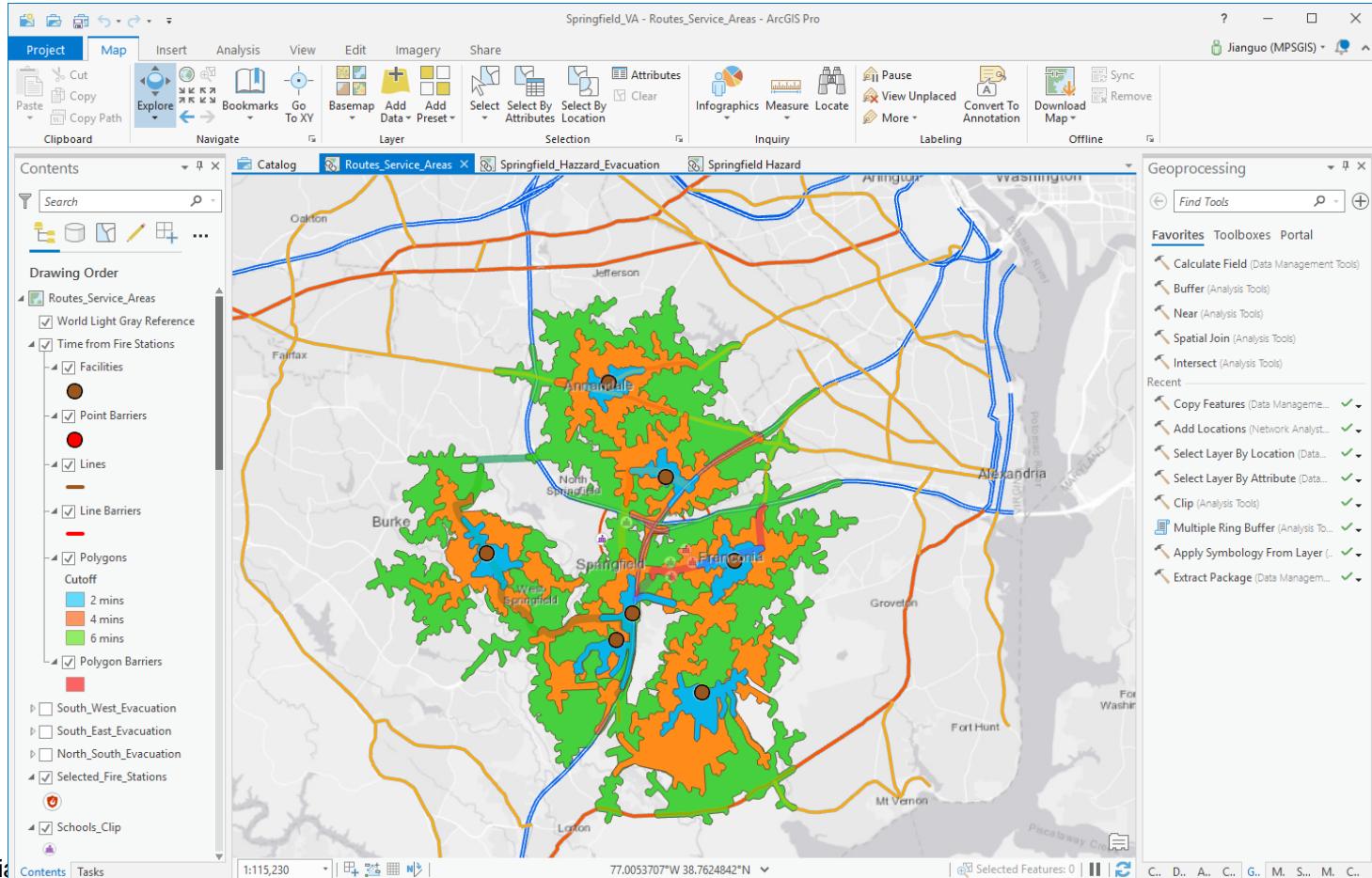
- What can you do with GIS?
 - A case study of emergency management
 - Evaluation





Introduction to GIS

- What can you do with GIS?
 - A case study of emergency management
 - Solution





Introduction to GIS

- What can you do with GIS?
 - A case study of emergency management
 - Solution

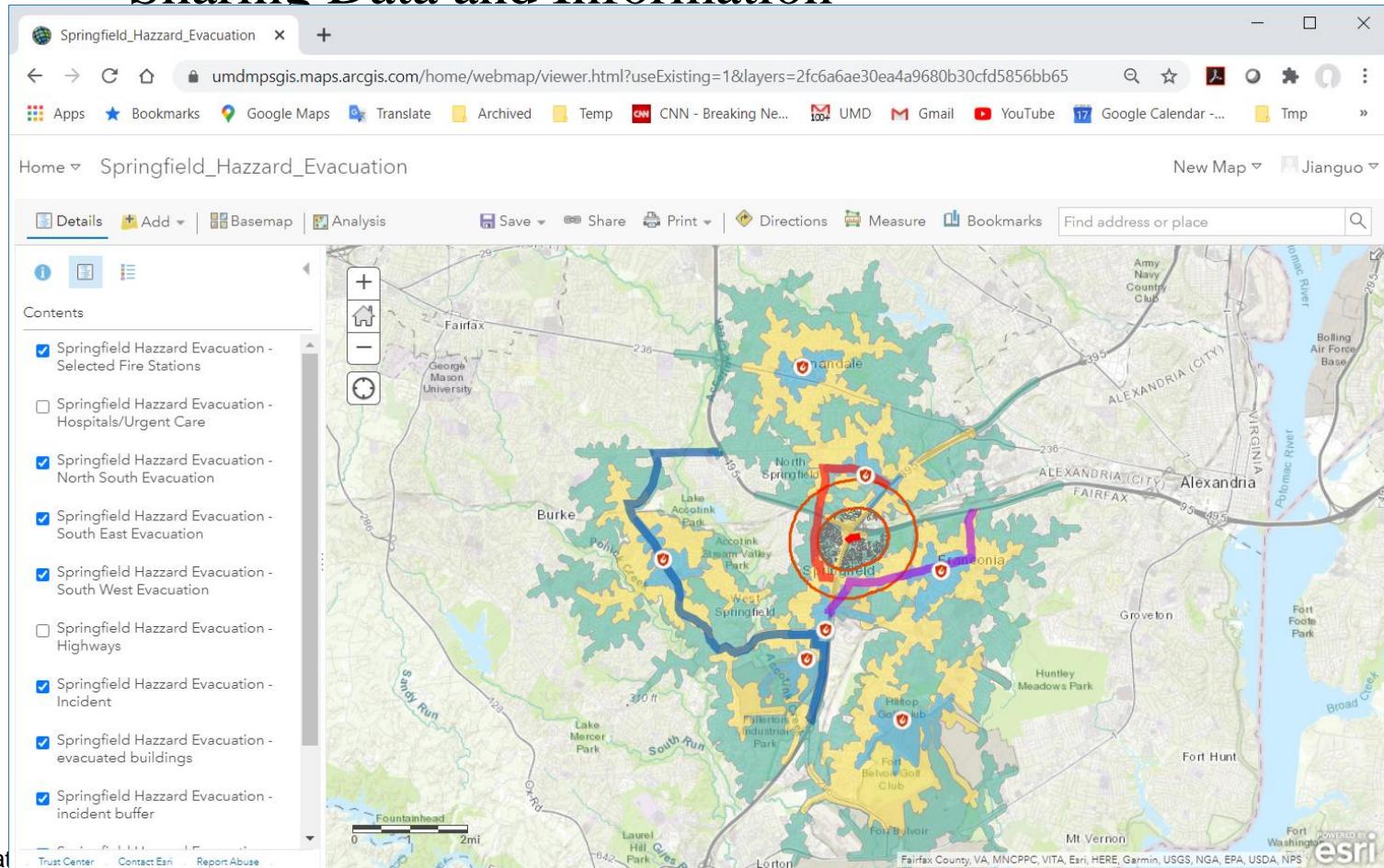
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The screenshot shows the ArcGIS Pro application window titled "Springfield_VA - Springfield_Hazard_Evacuation - ArcGIS Pro". The interface includes a ribbon menu with Project, Map, Insert, Analysis, View, Edit, Imagery, Share, and a user profile for "Jianguo (MPSGIS)". The Share tab is selected. The main workspace displays a map of Springfield, VA, with various hazard areas colored in green, yellow, and blue. Evacuation routes are shown as red, purple, and blue lines connecting different zones. A legend on the left lists layers such as "Springfield_Hazard_Evacuation", "Selected_Fire_Stations", "Hospitals/Urgent Care", "North_South_Evacuation", "South_East_Evacuation", "South_West_Evacuation", "Highways", "Incident", and "evacuated_buildings". The "Share As Web Layer" pane on the right shows a search results table with one entry for "Springfield_Hazard_Evacuation" with code 24041. The status bar at the bottom indicates a coordinate of 77.2144493°W 38.8576937°N and 1:115,230 scale.



Introduction to GIS

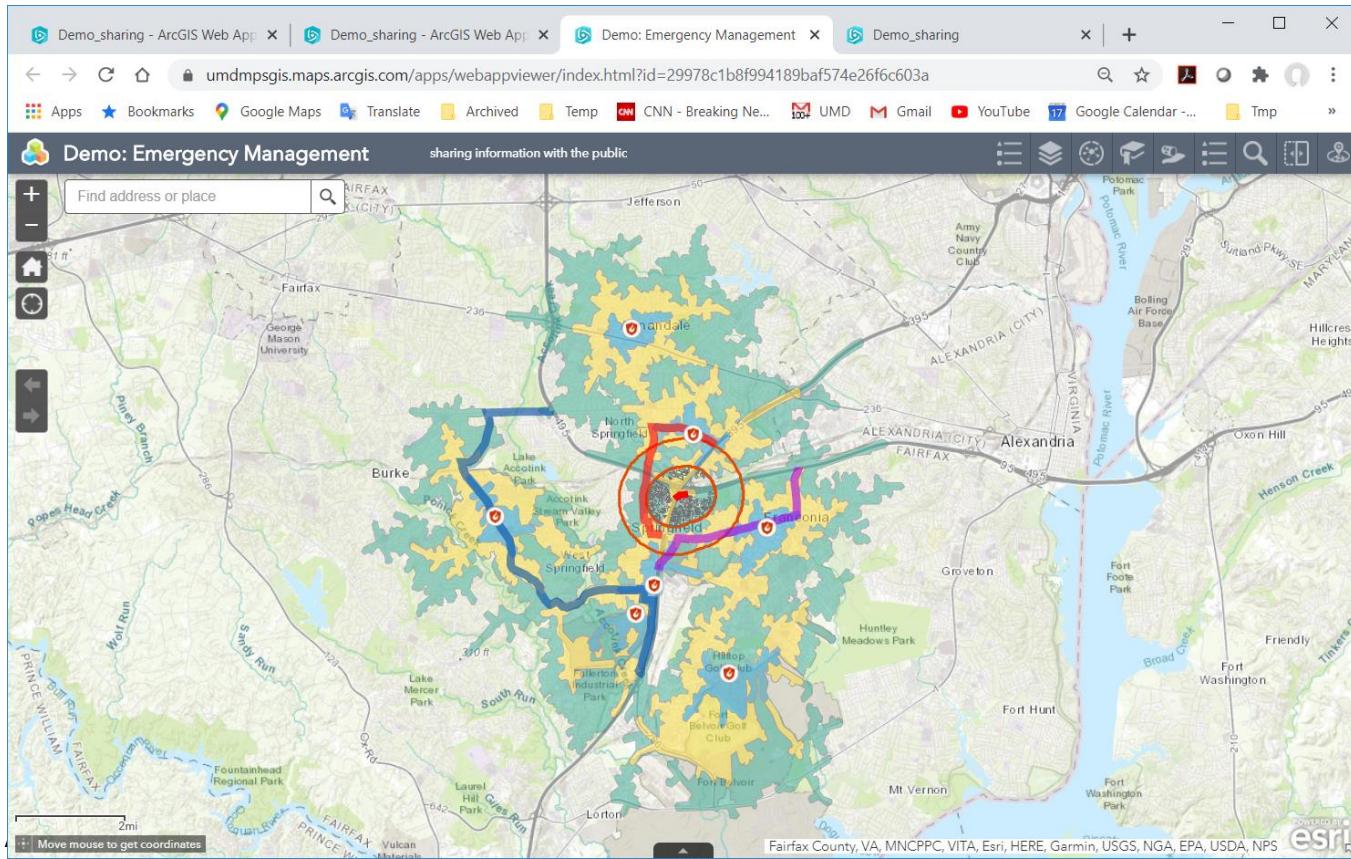
- What can you do with GIS?
 - A case study of emergency management
 - Sharing Data and Information





Introduction to GIS

- What can you do with GIS?
 - A case study of emergency management
 - Sharing Data and Information
 - <https://umdmpsgis.maps.arcgis.com/apps/webappbuilder/index.html?id=29978c1b8f994189baf574e26f6c603a>





ArcGIS Pro

- ArcGIS Pro is definitely the trend and on the way taking over desktop ArcGIS.
 - More integrated
 - More advanced
- Downloading and installation:
 - <http://pro.arcgis.com/en/pro-app/get-started/install-and-sign-in-to-arcgis-pro.htm>
- License will be granted.



ArcGIS Pro

- ArcGIS Pro
 - It is designed for GIS professionals to analyze, visualize, edit, and share maps in both 2D and 3D.
 - ArcGIS Pro is the latest app in the ArcGIS for Desktop suite, which also includes ArcMap, ArcCatalog, ArcScene, and ArcGlobe.
 - **It is time to migrate to ArcGIS Pro.**

ArcGIS Pro



- ArcGIS Pro
 - Your work in ArcGIS Pro is organized into projects.
 - These projects contain maps, layouts, layers, tables, tasks, tools, and connections to servers, databases, folders, and styles.
 - Projects are designed to be collaborative so that they can be shared and opened by others.
 - ArcGIS Pro can also connect to ArcGIS Online public content and to your organization's content.



ArcGIS Pro

- ArcGIS Pro
 - New license model: SAAS
 - Named user license through ArcGIS Online portal

The screenshot shows the ArcGIS Pro application window titled "Licensing". The main content area displays two tables: "ArcGIS Pro Named User License" and "Esri Extensions".

ArcGIS Pro Named User License

Name	Licensed	Expires
Basic	No	N/A
Standard	No	N/A
Advanced	Yes	8/31/2020

Esri Extensions

Name	Licensed	Expires
3D Analyst	Yes	8/31/2020
Aviation Airports	No	N/A
Business Analyst	No	N/A
Data Interoperability	Yes	8/31/2020
Data Reviewer	Yes	8/31/2020
Defense Mapping	No	N/A
Geostatistical Analyst	Yes	8/31/2020
Image Analyst	No	N/A
LocateXT	No	N/A

Settings

Authorize ArcGIS Pro to work offline ?
 Show license expiration warning messages.

Licensing Portal
<https://www.arcgis.com/>



ArcGIS Pro

- ArcGIS Pro

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ArcGIS Pro - MyProject - Map

FEATURE LAYER

PROJECT MAP INSERT ANALYSIS VIEW EDIT SHARE APPEARANCE LABELING DATA

Clipboard Cut Copy Paste

Explore Navigate Bookmarks Basemap Add Layer Add Data Preset Selection Selection Inquiry Labeling

Attributes Select By Attributes Location Clear Infographics Measure Locate More Pause View Unplaced

Contents

Map New Data Frame 21

Search

Drawing Order

- Map
- FL_sinkholes_point
- FL_major_roads_07
- FL_sinkholes_point_Buffer
- FL_cty_bnd
- Esri World Topographic Map

1:2,735,222 | 080.34W 29.24N | Selected Features: 170

Geoprocessing

Buffer

Parameters | Environments

Input Features: FL_sinkholes_point

Output Feature Class: FL_sinkholes_point_Buffer

Distance [value or field]: 10 Meters

Method: Planar

Dissolve Type: No Dissolve

Run

FL_sinkholes_point

Field: FID Shape OBJECTID REF_NUM TRUE_SINK DATE_ADD DATE_RE

FID	Shape	OBJECTID	REF_NUM	TRUE_SINK	DATE_ADD	DATE_RE
2	Point	225	02-683		9/5/2006	<Null>
26	Point	249	02-711		<Null>	<Null>
28	Point	251	02-713		9/5/2006	<Null>
100	Point	323	02-791		9/5/2006	9/5/2006
102	Point	325	02-793		9/5/2006	9/5/2006
103	Point	326	02-794		9/5/2006	9/5/2006
104	Point	327	02-795		9/5/2006	9/5/2006
112	Point	335	03-001		02/26/04	<Null>
136	Point	359	07-001		<Null>	<Null>
183	Point	406	08-046		05/02/02	<Null>

170 of 2831 selected

100 %

Project Geoprocessing



ArcGIS Pro

• ArcGIS Pro

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ArcGIS Pro - Network_Analysis_demo - Map

Project Map Insert Analysis View Edit Imagery Share Network Analyst Location-Allocation Jianguo (University of Maryland)

Cut Copy Paste Copy Path Clipboard Navigate Basemap Add Data Add Preset Select Select By Attributes Select By Location Attributes Infographics Measure Locate Pause View Unplaced More Convert To Annotation Download Map Offline

Contents Catalog Map X Map1 Map1_3D

Drawing Order

- Lines
- Line Barriers
- Polygon Barriers
- OD Cost Matrix
- Origins
- Destinations
- Point Barriers
- Lines
- Line Barriers
- Polygon Barriers

Symbology

The symbology cannot be modified. See the help for more information.

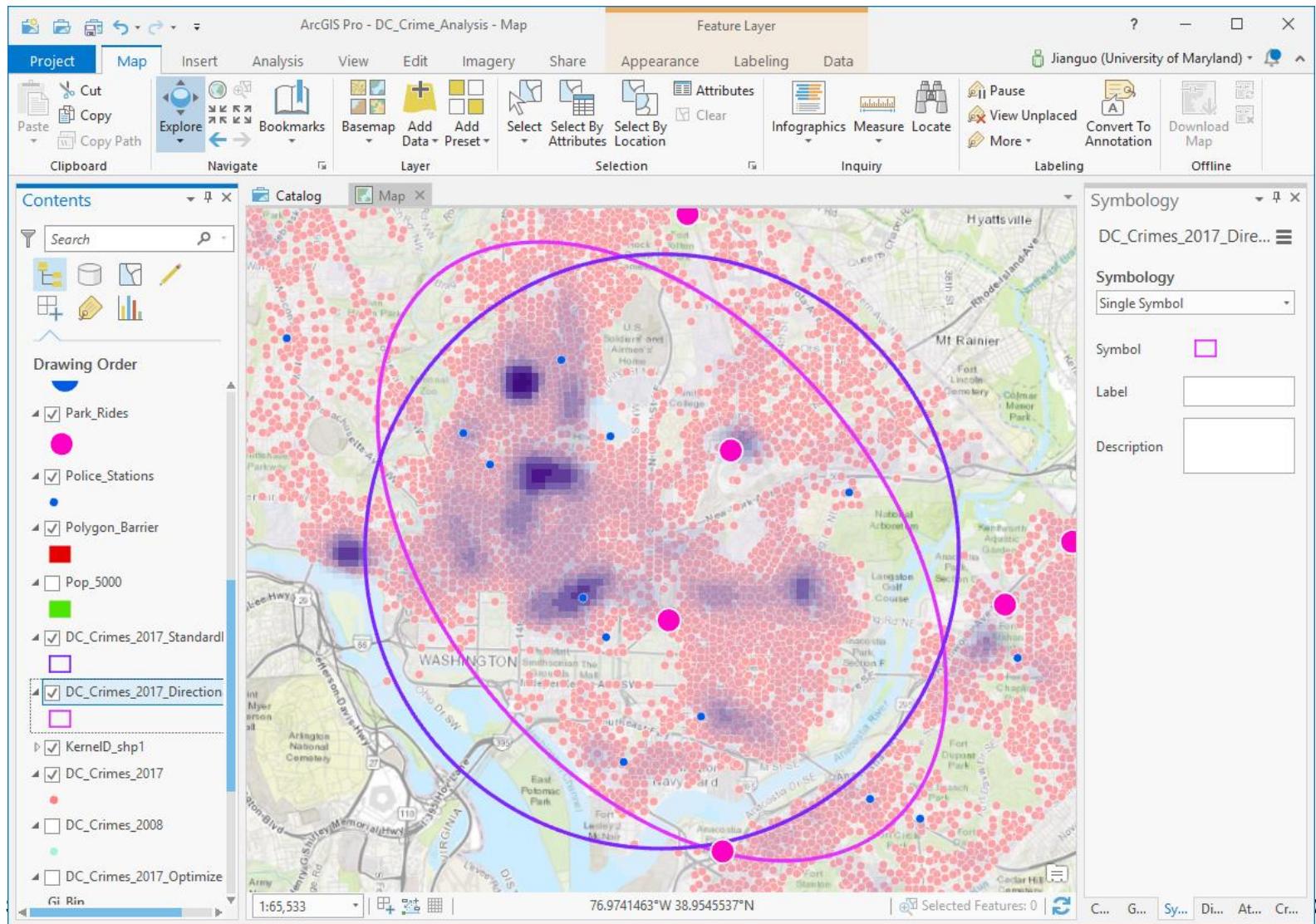
1:416,827 76.9427575°W 39.1245494°N Selected Features: 1

GEOG653: College Park



ArcGIS Pro

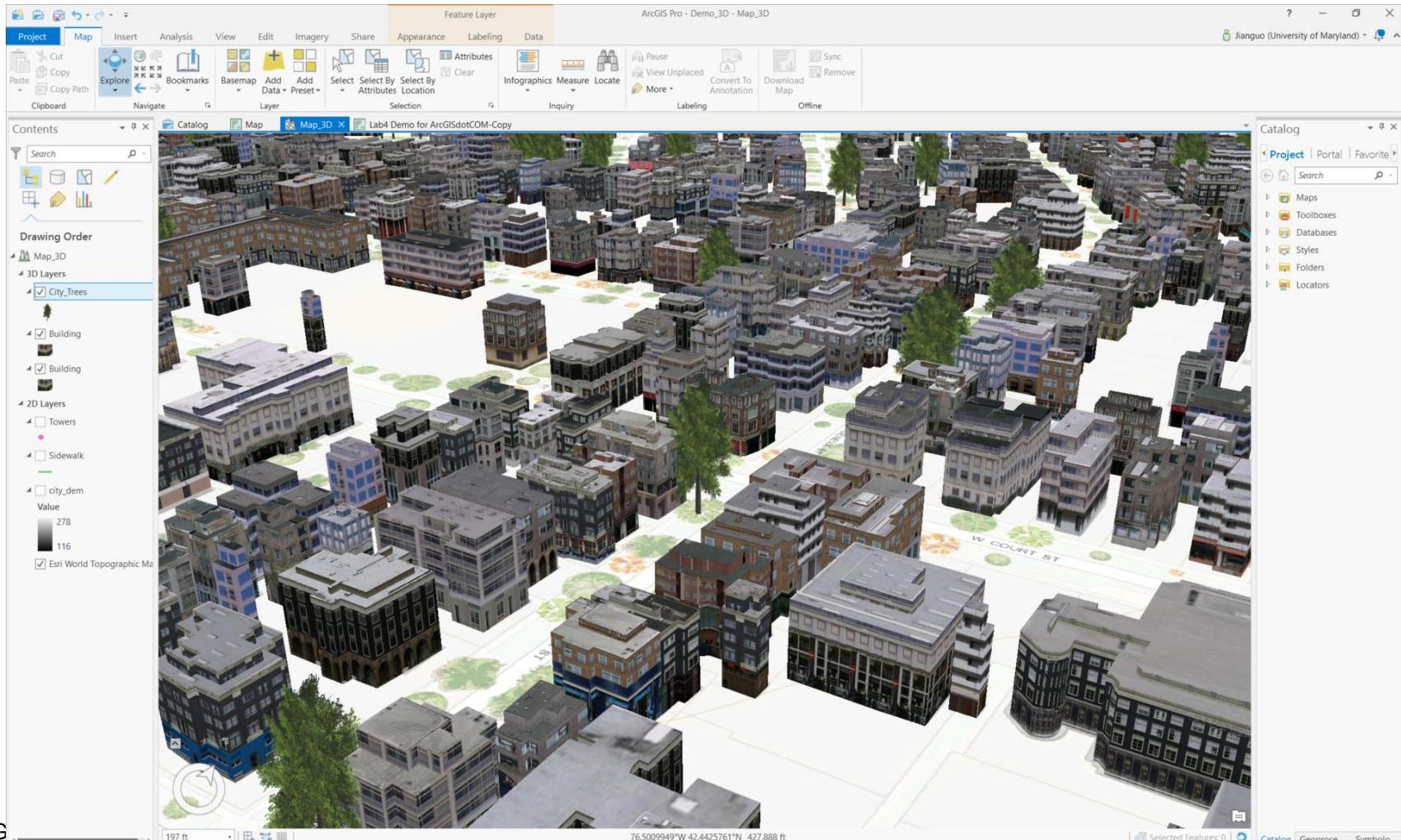
- ArcGIS Pro





ArcGIS Pro

- ArcGIS Pro
 - 3D Visualization





ArcGIS Online

- Overview
 - ArcGIS Online is more than just a platform.
 - It is the future of GIS.
 - Distributed GIS!
 - The access to ArcGIS Online will be provided.



ArcGIS Online

- Overview

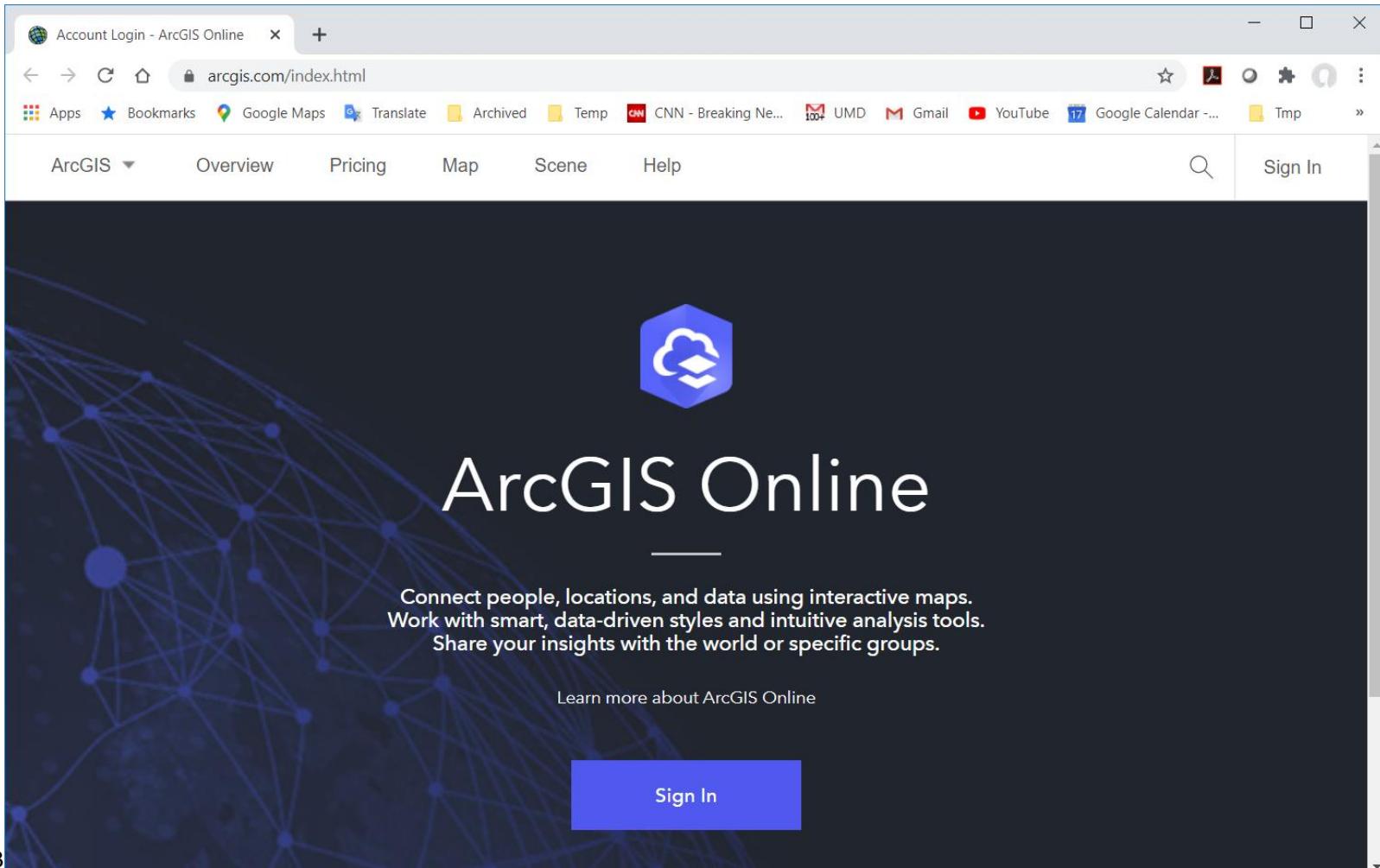
- It is a complete, cloud-based, collaborative content management system that lets organizations manage their geographic information in a secure and configurable environment.
- It is an online, collaborative web GIS that allows you to use, create, and share maps, scenes, apps, layers, analytics, and data.
 - You get access to Living Atlas of the World, apps, and Esri's secure cloud, where you can add items and publish web layers.



ArcGIS Online

- Overview

- <https://www.arcgis.com/>



The screenshot shows a web browser window displaying the ArcGIS Online homepage. The URL in the address bar is [arcgis.com/index.html](https://www.arcgis.com/index.html). The page features a dark background with a blue hexagonal logo containing a stylized cloud and water icon. Below the logo, the text "ArcGIS Online" is displayed in large, white, sans-serif letters. To the left of the text is a blue network graphic consisting of numerous small blue dots connected by thin blue lines. A horizontal line separates the title from the descriptive text below. The text reads: "Connect people, locations, and data using interactive maps. Work with smart, data-driven styles and intuitive analysis tools. Share your insights with the world or specific groups." At the bottom of the page, there is a blue button labeled "Sign In". Above the "Sign In" button, a link says "Learn more about ArcGIS Online". The browser's navigation bar includes links for "Overview", "Pricing", "Map", "Scene", and "Help". The top right corner of the browser window has a "Sign In" link. The overall theme is professional and technology-oriented.



ArcGIS Online

- Overview
 - The ArcGIS.com web site is where professional GIS users share information with all kinds of Web GIS users.
 - You can use ArcGIS Desktop and Server to create and publish rich maps and geographic information services that are mashed up and referenced in Web maps.
 - You can also share the Web maps online with the ArcGIS community.

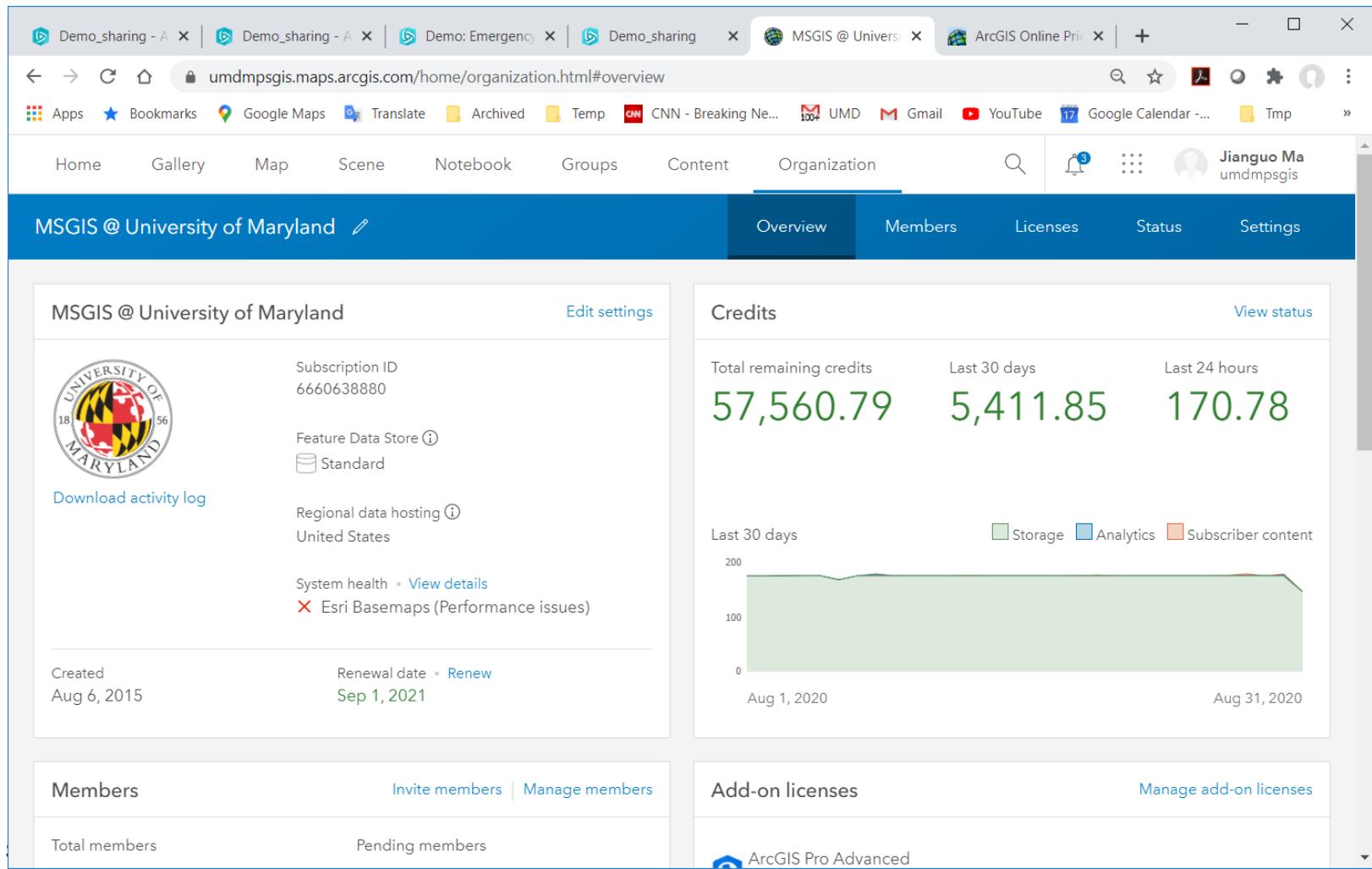


- Overview
 - Home
 - Gallery
 - Map
 - Scene
 - Notebook
 - Groups
 - Content
 - Search and Discovery



ArcGIS Online

- Overview
 - Organization



The screenshot shows the ArcGIS Online organization overview page for "MSGIS @ University of Maryland". The top navigation bar includes links for Home, Gallery, Map, Scene, Notebook, Groups, Content, Organization, and a search bar. The user profile of "Jianguo Ma umdmpsgis" is visible on the right.

The main content area has tabs for Overview, Members, Licenses, Status, and Settings. The Overview tab is selected, displaying the organization's name, logo, and basic information like Subscription ID (6660638880) and Feature Data Store (Standard). It also shows regional data hosting (United States), system health (with a warning for Esri Basemaps), and creation date (Aug 6, 2015).

The Credits section displays remaining credits (57,560.79), usage over the last 30 days (5,411.85), and usage over the last 24 hours (170.78). A chart visualizes storage usage over time.

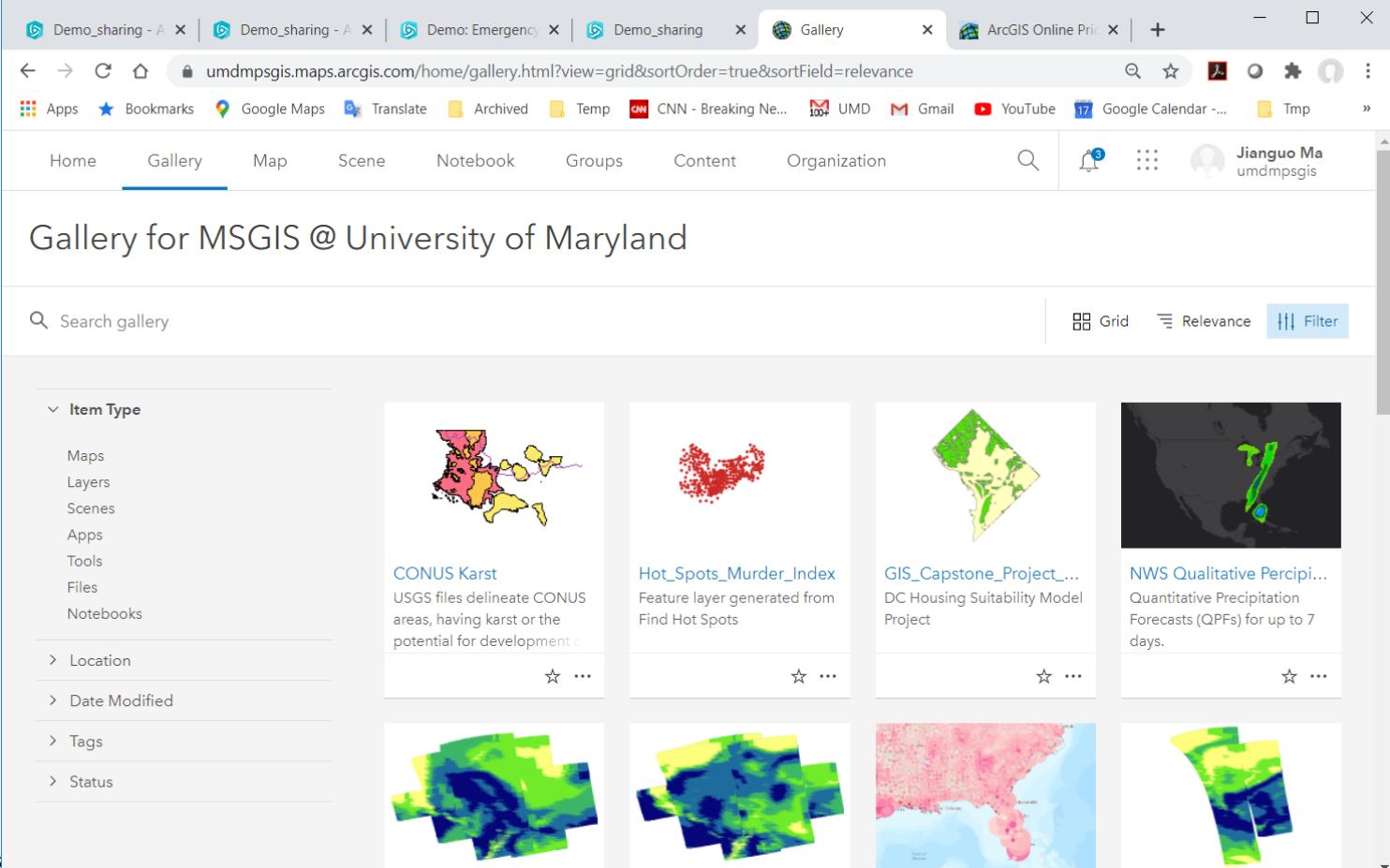
Below the credits, there are sections for Members, Add-on licenses, and Manage add-on licenses. The Members section shows total members and pending members. The Add-on licenses section lists "ArcGIS Pro Advanced".



ArcGIS Online

- Overview
 - Gallery
 - A collection of maps, web and mobile applications.

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The screenshot shows the ArcGIS Online interface with the 'Gallery' tab selected. The title bar displays multiple browser tabs, including 'Demo_sharing - A', 'Demo: Emergency', 'Demo_sharing', 'ArcGIS Online Pri...', and 'Gallery'. The main content area is titled 'Gallery for MSGIS @ University of Maryland'. On the left, a sidebar provides filtering options for 'Item Type' (Maps, Layers, Scenes, Apps, Tools, Files, Notebooks), 'Location', 'Date Modified', 'Tags', and 'Status'. The main area displays a grid of eight map items:

- CONUS Karst**: USGS files delineate CONUS areas, having karst or the potential for development.
- Hot_Spots_Murder_Index**: Feature layer generated from Find Hot Spots.
- GIS_Capstone_Project...**: DC Housing Suitability Model Project.
- NWS Qualitative Precipi...**: Quantitative Precipitation Forecasts (QPFs) for up to 7 days.
- Quantitative Precipitation...**: Quantitative Precipitation Forecasts (QPFs) for up to 7 days.
- DC Housing Suitability Model...**: DC Housing Suitability Model Project.
- Find Hot Spots**: Feature layer generated from Find Hot Spots.
- USGS files delineate CONUS areas, having karst or the potential for development**: USGS files delineate CONUS areas, having karst or the potential for development.



ArcGIS Online

- Overview
 - Map

- The environment where you can create the web maps and also do Spatial Analysis.

The screenshot shows the ArcGIS Online interface. At the top, there's a browser header with tabs for 'GEOG653-GI01: Spatial Analysis...', 'Topic: Lecture today - 8/27/2019', 'UNIV OF MARYLAND WebEx Ent...', and 'My Map'. Below the header is a toolbar with icons for Apps, Bookmarks, Google Maps, Translate, Archived, Temp, CNN - Breaking News, UMD, Gmail, YouTube, Google Calendar, and Tmp. The main area is titled 'Home ▾ My Map' and features a map of North America. On the left, there's a sidebar with instructions for creating a map: 'Make your own map', 'It's easy to make your own map. Just follow these steps:', and four numbered steps: 1. Choose an area, 2. Decide what to show, 3. Add more to your map, and 4. Save and share your map. The map itself shows the United States, Canada, and Mexico with state/province boundaries, major cities, and rivers. A scale bar at the bottom left indicates distances from 0 to 600 miles. The bottom right corner of the map area has a 'POWERED BY esri' logo.



ArcGIS Online

- Overview
 - Groups
 - ArcGIS users can set up and join user groups (communities) that share GIS content with one another and perform other related collaborative activities.
 - A group participant/member can choose to leave or stay a group.
 - A group creator/administrator can decide whom to invite or remove.



ArcGIS Online

- Overview
 - Groups

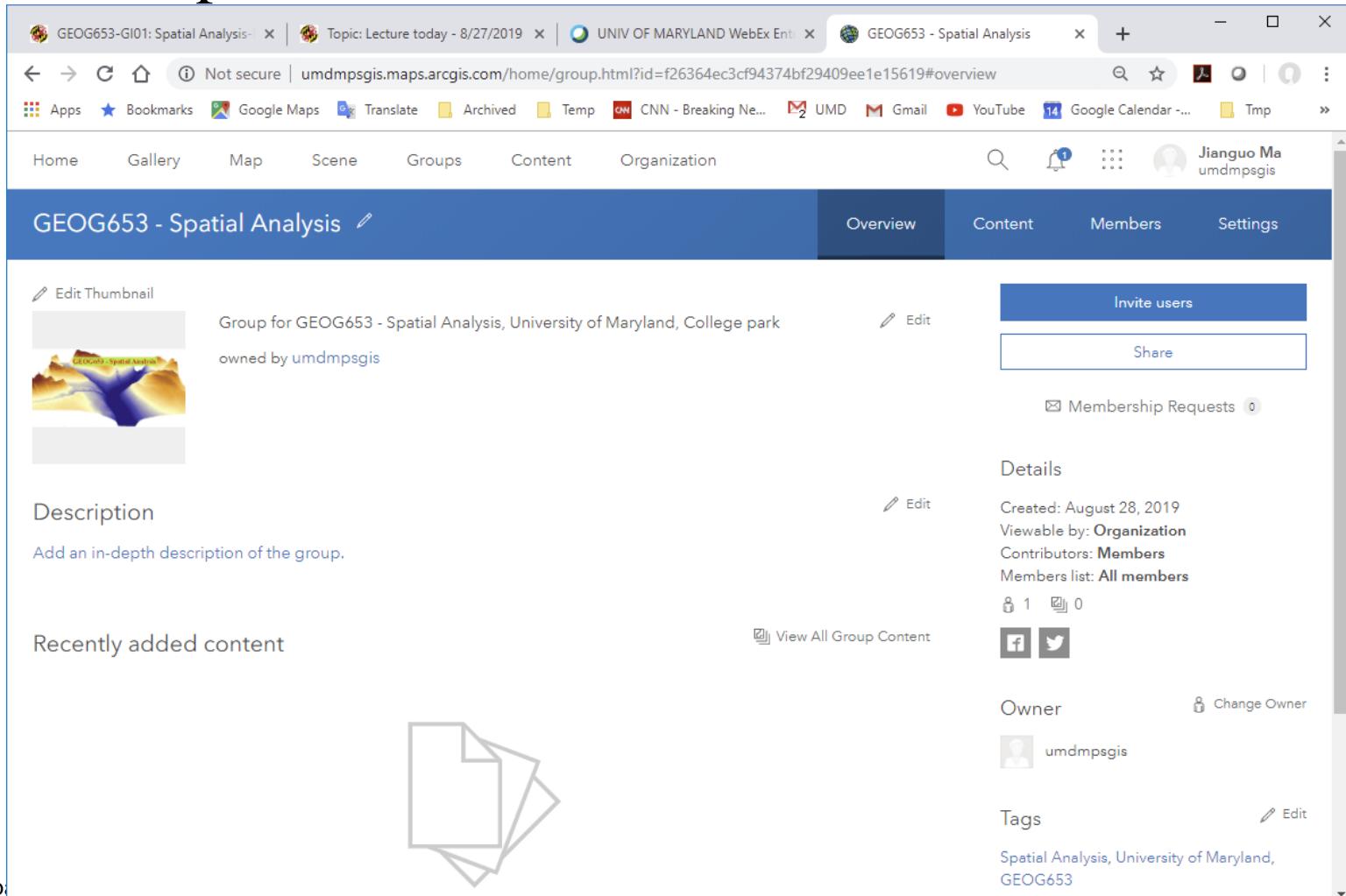
The screenshot shows the ArcGIS Online interface with the 'Groups' tab selected in the top navigation bar. A blue sidebar on the left contains filters for 'Owner' (Owned by Me, Owned by Others) and 'Date Created' (Today, Yesterday, Last 7 Days, Last 30 Days, Custom Range...). The main content area displays a list of groups, each with a thumbnail, title, owner, creation date, last update date, and viewability status. The first group listed is 'ArcGIS Administration'.

Group	Owner	Created	Last Updated	Viewable by
ArcGIS Administration	pgoja_umdmpsgis	May 9, 2016	May 9, 2016	Group Members
Demo_614	umdmpsgis	Jun 13, 2019	Jun 13, 2019	Group Members
Demo_F2018	umdmpsgis	Oct 30, 2018	Oct 30, 2018	Group Members
Demo_May2018	umdmpsgis	May 16, 2018	May 16, 2018	Group Members



ArcGIS Online

- Overview
 - Groups



The screenshot shows the ArcGIS Online interface for a group named "GEOG653 - Spatial Analysis". The top navigation bar includes links for Home, Gallery, Map, Scene, Groups, Content, Organization, and a search bar. The user "Jianguo Ma umdmpsgis" is logged in. The main content area displays the group's details, including its thumbnail (a 3D terrain map), description ("Group for GEOG653 - Spatial Analysis, University of Maryland, College park owned by umdmpsgis"), and various management options like "Invite users" and "Share". The "Details" section shows the group was created on August 28, 2019, is viewable by organization, has members as contributors, and lists all members. It also shows 1 item and 0 discussions. Social sharing icons for Facebook and Twitter are present. The "Owner" is listed as "Owner umdmpsgis". The "Tags" section includes "Spatial Analysis, University of Maryland, GEOG653". A "Recently added content" section is shown with a placeholder icon.

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GEOG653 - Spatial Analysis

Topic: Lecture today - 8/27/2019

UNIV OF MARYLAND WebEx Ent.

GEOG653 - Spatial Analysis

Home Gallery Map Scene Groups Content Organization

Jianguo Ma
umdmpsgis

GEOG653 - Spatial Analysis

Edit Thumbnail

Group for GEOG653 - Spatial Analysis, University of Maryland, College park
owned by umdmpsgis

Edit

Invite users

Share

Membership Requests 0

Description

Add an in-depth description of the group.

Edit

Created: August 28, 2019

Viewable by: Organization

Contributors: Members

Members list: All members

1 0

View All Group Content

Recently added content

Owner Change Owner

Owner umdmpsgis

Tags Edit

Spatial Analysis, University of Maryland, GEOG653

College Park



ArcGIS Online

- Overview
 - Content
 - Each ArcGIS user can upload and manage ArcGIS content, for example, Web maps, map packages, layer packages, toolboxes, custom desktop add-ins, and references to ArcGIS services for sharing.
 - This content can be shared in focused ways among a small user group or more openly with larger communities.



ArcGIS Online

- Overview
 - Content

The screenshot shows the ArcGIS Online Content page. At the top, there are several tabs: Home, Gallery, Map, Scene, Notebook, Groups, Content (which is selected), Organization, and a search bar. Below the tabs, there are buttons for 'Add Item' and 'Create', and a search bar with the placeholder 'Search umdmpsgis'. To the right of the search bar are filters for 'Table', 'Date Modified', and 'Filter'. On the left, there's a sidebar with 'Folders' and 'Filters'. The 'Folders' section shows a list of items under 'All My Content' and 'umdmpsgis'. The 'Filters' section has a collapsed 'Categories' section. The main content area displays a table of 193 items, ordered by 'Modified' date. The first few items listed are:

Title	Type	Last Modified
Demo_sharing	Web Mapping Application	Aug 31, 2020
Demo_sharing	Web Map	Aug 31, 2020
Springfield_Hazard_Evacuation	Feature Layer (hosted)	Aug 31, 2020
Springfield_Hazard_Evacuation	Service Definition	Aug 31, 2020
Demo_May14_app	Web Mapping Application	May 14, 2020
DC_Data_demo	Feature Layer (hosted)	May 14, 2020
DC_Data_demo	Shapefile	May 14, 2020
Assigned_facilities_for_DC_Dat	Feature Layer (hosted)	May 13, 2020
a_May132020__Park_Rides		



ArcGIS Online

- Overview
 - Content
 - Example: web map

GEOG653-GI01: Spati | Topic: Lecture today | UNIV OF MARYLAND | Jessica Restaurants | +

Not secure | umdmpsgis.maps.arcgis.com/home/item.html?id=d7d36eedcefd446d8... | Apps Bookmarks Google Maps Translate Archived Temp CNN - Breaking Ne... UMD Gmail

Home Gallery Map Scene Groups Content Organization

Jessica Restaurants

Overview Usage

Open in Map

demo

Web Map by umdmpsgis

Created: Aug 26, 2019 Updated: Aug 27, 2019 View Count: 30

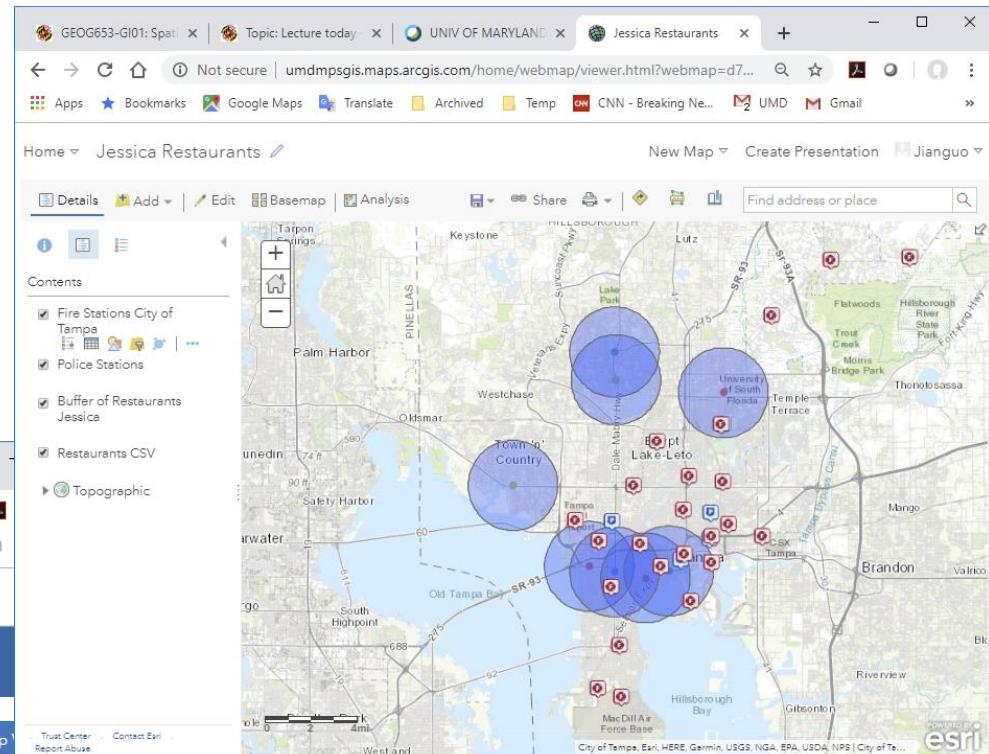
Add to Favorites

Description

Add an in-depth description of the item.

Layers

- Fire Stations City of Tampa
- Police Stations
- Buffer_of_Restaurants_Jessica
- Restaurants CSV





ArcGIS Online

- Overview
 - Content
 - Example: web mapping

GEOG653-GI01: Spat | Topic: Lecture today | UNIV OF MARYLAND | Jessica Restaurants | +

Not secure | umdmpsgis.maps.arcgis.com/home/item.html?id=bf72ef0f726b49cfa3f...

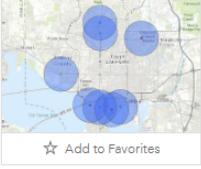
Apps Bookmarks Google Maps Translate Archived Temp CNN - Breaking Ne... UMD Gmail

Home Gallery Map Scene Groups Content Organization

Jessica Restaurants

Overview Usage Settings

Edit Thumbnail Add a brief summary about the item.



Web Mapping Application by umdmpsgis

Created: Aug 26, 2019 Updated: Aug 26, 2019 View Count: 18

Add to Favorites

Description

Add an in-depth description of the item.

Terms of Use

Add any special restrictions, disclaimers, terms and conditions, or limitations on using the item's content.

Comments (0)

View Application

Edit Application Download Share

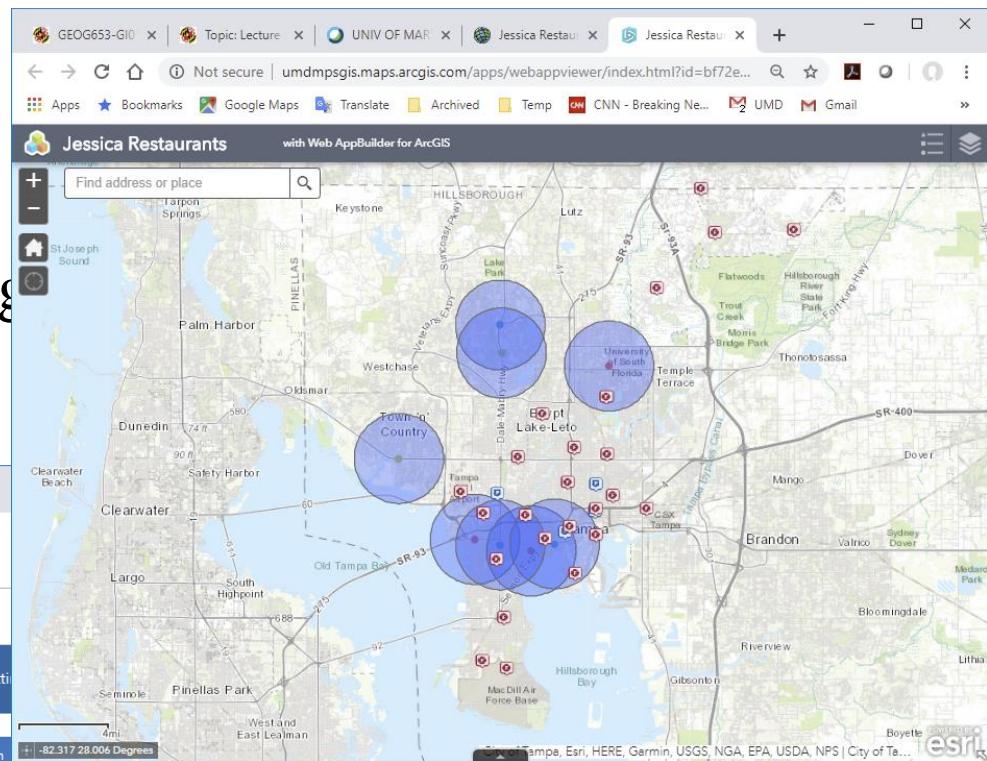
Item Information

Low High

Top Improvement: Add a summary

Details

Size: 23 KB Shared with: Everyone (public) API: JavaScript Purpose: Ready To Use

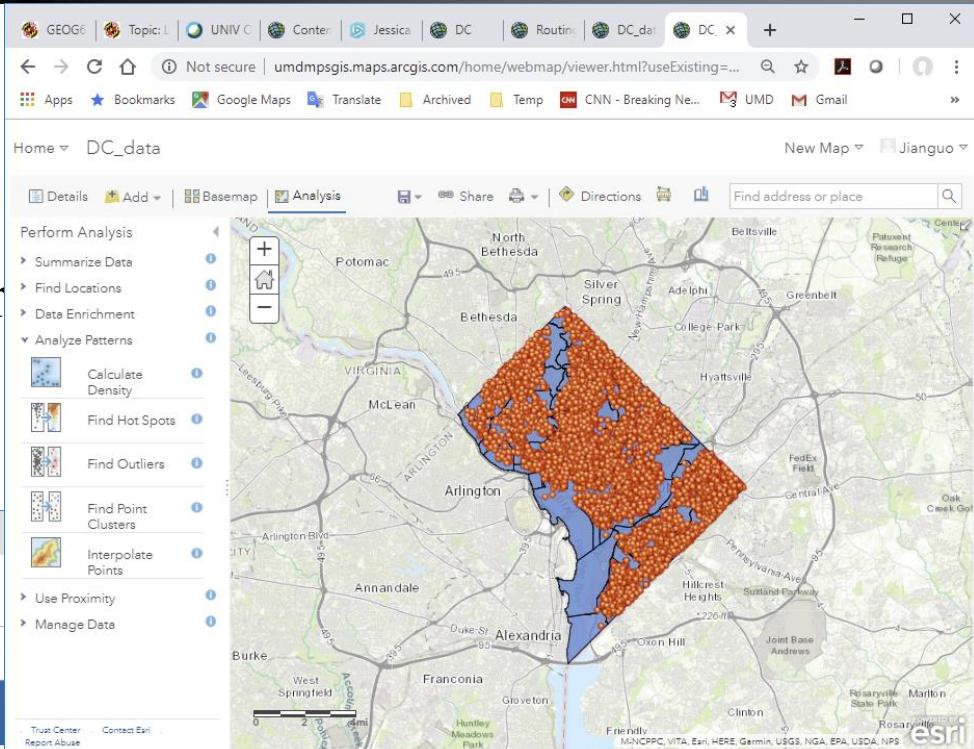




ArcGIS Online

- Overview
 - Content
 - Example: hosted feature

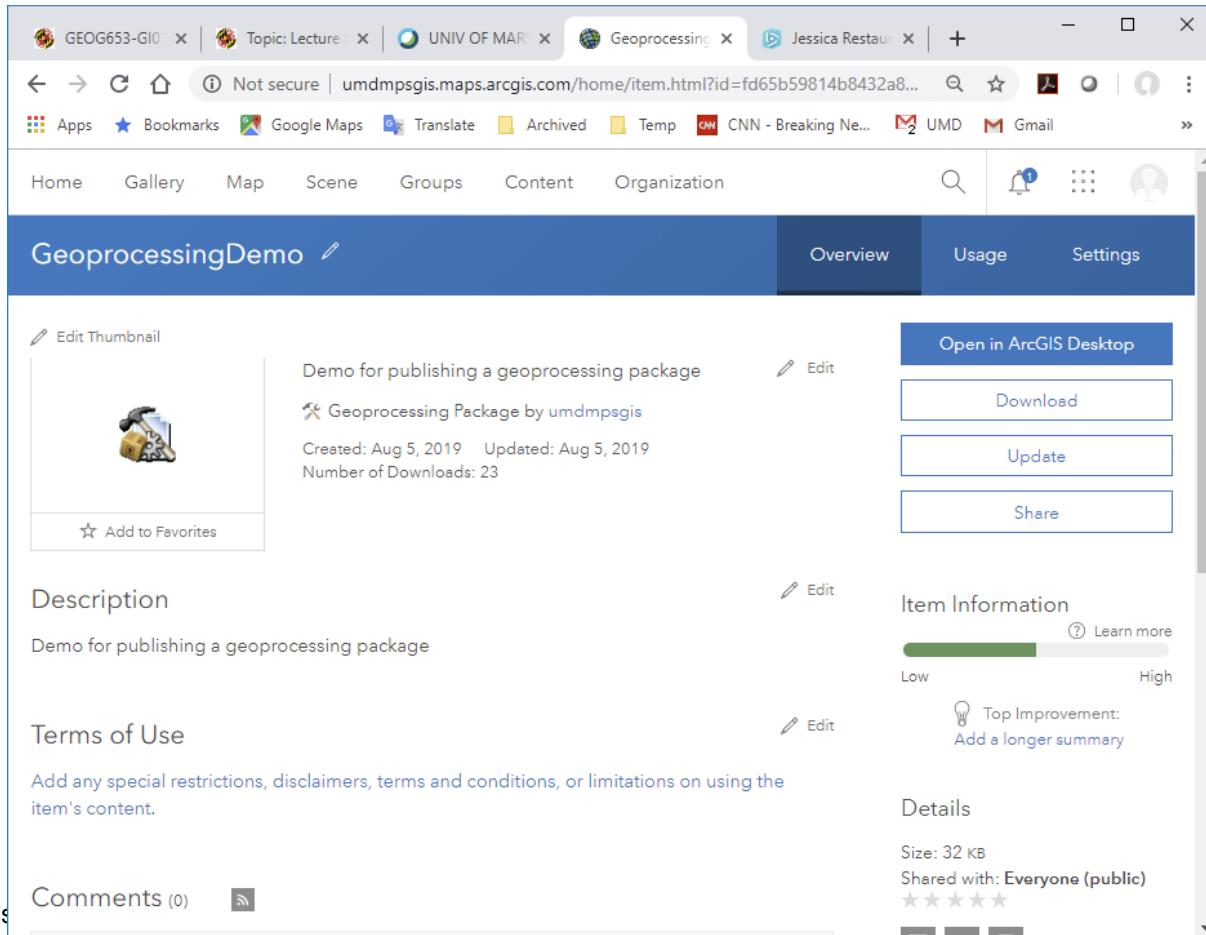
The screenshot shows the ArcGIS Online interface for a hosted feature layer named 'DC_data'. The top navigation bar includes links for GEOG6, Topic: L, UNIV C, Conter, Jessica, DC, Routine, DC_data, and DC_x. Below the bar, there are tabs for Home, DC_data, and a search bar. The main content area displays a thumbnail of the map, a summary section with a brief description and edit link, and a 'Layers' section containing two layers: 'DC_Crimes_2017' and 'Park_Rides'. Each layer has its own set of controls like Open In, Export To, Time Settings, Enable Attachments, and Service URL.





ArcGIS Online

- Overview
 - Content
 - Example: geoprocessing package



The screenshot shows a web browser window displaying an ArcGIS Online item page for a "GeoprocessingDemo" package. The page includes sections for Description, Terms of Use, Comments, and Details, along with options to Open in ArcGIS Desktop, Download, Update, or Share the package.

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GeoprocessingDemo

Overview Usage Settings

Edit Thumbnail

Demo for publishing a geoprocessing package

Geoprocessing Package by umdmpsgis

Created: Aug 5, 2019 Updated: Aug 5, 2019

Number of Downloads: 23

Add to Favorites

Description

Demo for publishing a geoprocessing package

Terms of Use

Add any special restrictions, disclaimers, terms and conditions, or limitations on using the item's content.

Comments (0)

Open in ArcGIS Desktop

Download

Update

Share

Item Information

Learn more

Low High

Top Improvement: Add a longer summary

Details

Size: 32 KB Shared with: Everyone (public)

of Maryland at College Park



ArcGIS Online

- Overview
 - Search
 - You can use the search interface to search for and find GIS maps and information that are shared at ArcGIS.com, served from a particular ArcGIS Server Web site, or available on the Internet.
 - Within Content
 - Within Group
 - Within Organization
 - Within the Entire AGOL Community



ArcGIS Online

- Overview
 - Search

Screenshot of the ArcGIS Online search interface:

- Top Bar:** Course, Topic: L, UNIV C, Content, Jessica, MPSGI, Arc, DC_dat, DC_dat.
- Toolbar:** Apps, Bookmarks, Google Maps, Translate, Archived, Temp, CNN - Breaking Ne..., UMD, Gmail.
- Search Bar:** dc crime.
- Content Filter:** Content (selected), Groups.
- Page Number:** 1 - 20 of 42.
- Filters:** Only search in MPSGIS (checked).
- Item Type:** Maps, Layers, Scenes, Apps, Tools, Files.
- Location:** > Location.
- Date Modified:** > Date Modified.
- Tags:** > Tags.

Screenshot of the ArcGIS Online item details page for "Hot_Spots_DC_Crimes_2017":

- Header:** Course, Topic: L, UNIV C, Content, Jessica, MPSGI, Hot, DC_dat, DC_dat.
- Breadcrumbs:** Home, Gallery, Map, Scene, Groups, Content, Organization.
- Title:** Hot_Spots_DC_Crimes_2017
- Actions:** Overview (selected), Data, Visualization, Usage, Settings.
- Thumbnail:** Edit Thumbnail, Feature layer generated from Find Hot Spots, Add to Favorites.
- Description:** Feature Layer (hosted) by umdmpsgis, Created: Jun 13, 2019, Updated: Jun 13, 2019, View Count: 30.
- Actions (right):** Open in Map Viewer, Open in Scene Viewer, Open in ArcGIS Desktop, Publish, Create View Layer, Export Data, Update Data, Share.
- Item Information:** Learn more, Top Improvement.
- Report Content:**
 - Initial Data Assessment:**
 - There were 31422 valid input features.
 - There were 102 outlier locations; these were not used to compute the polygon cell size.
 - Incident Aggregation:**
 - The polygon cell size was 200.0000 Meters.
 - The aggregation process resulted in 3581 weighted areas.



Demo

- ArcGIS Pro
 - Overview
 - Network analysis
 - 3D Visualization and Analysis
- ArcGIS Online
 - Overview
 - Interface and Features
 - Importing data (various options)
 - Data Visualization
 - Spatial Analysis
 - Web map and web mapping app



THE END

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