Notes from Geospatial/GIS Meetup

September 9, 2021

via Zoom

Attendees: Janet Reyes, facilitator;
Via Zoom: Ahmed Eldawy, Amanda Grey, Ankitha Sathyanarayana, Canserina Kurnia, Chima Ibebunjoh, Elizabeth Perez, Fletcher Mentor, Gerald Winkel, Giang To, Jacobus Kats, Jonathan Young, Jorge Aponte Gomez, Kevin Comerford, Luis Enriquez-Contreras, Lynn Sweet, Malmurugan Sukumar, Sara Breune, Seth Hankla, Steve Ries, Tandy Dang

Announcements

This meeting was recorded; video is available here. The access passcode to view is M.8$Rtj+

Social Explorer, a database offered through UCR Library, has added **preliminary 2020 Census data** to its interface, which you can view in a map. They will add more data as it becomes available.

Geospatial/GIS meetups in Fall 2021 will be held on Thursday October 14, Wednesday November 10, and Thursday December 9.
The October meetup will be an 80-minute special edition, with a panel of faculty providing an overview of why geospatial perspectives and GIS are important in their various disciplines. Ample time for Q&A will be provided. We hope students new to GIS will gain from this event.
The November meetup will feature a presentation from David Biggs, a History professor at UCR. The topic for December is TBD at present.

Janet is offering two **workshops** this fall:

- QGIS: Building Skills with Vector Data - Tuesday, November 2
- Introduction to ArcGIS Online - Tuesday, November 9

UC GIS Week will take place November 16 - 18. Complete this form to submit a presentation proposal (including story maps or posters) before the September 30 deadline.

Janet gave a preview of the **Geospatial/GIS Quarterly**, a story map which will be updated with information about events and resources of interest to UCR affiliates, similar to what is presented at our meetups and in emails to the Geospatial listserv. It's envisioned as a one-stop shop of information. The plan is to publish it by the start of Fall Quarter, a couple of weeks from now.

The **FOSS4G** Conference will be held online September 27 to October 2. It includes workshops and presentations, all relating to Free Open Source Software for Geospatial. It costs students $50 to attend; others in the US would pay $100.

Canserina shared information about **offerings from Esri**:

- a webinar on September 16 for instructors in higher education on demystifying deep learning.
- the 2021 Esri Imagery Summit, planned to be held in-person in Redlands on October 19-20.

- In the chat, Luis asked whether there was a discounted price for students.
  UPDATE: Canserina followed up in an email "We only have general attendee registration fee ($100). There is no student discount for this event.
  However, an online version of this event featuring curated content, including a restream of the Plenary Session, will be available **beginning November 16, 2021**. Digital access is available to all customers currently on maintenance or subscriptions. UCR is current on maintenance."

Jonathan from the R'Geospatial Club announced that the club would like to coordinate a scavenger hunt on campus this year, hopefully around the time of UC GIS Week. The club will also hold meetings and other activities throughout the year.

First-time Attendees

Ankitha Sathyanarayana, Chima Ibebunjoh, Fletcher Mentor, Giang To, Jacobus Kats, Luis Enriquez-Contreras, Malmurugan Sukumar, Seth Hankla, and **Tandy Dang** were all first-time attendees at this meetup. Thanks for joining us, and we hope you'll return in the future!

Chima Ibebunjoh is a software engineer from Ghana with an interest in webmapping and geospatial data science.

Fletcher Mentor joined us from Springfield, MA and is new to GIS.

Malmurugan Sukumar is joining UCR this Fall as a graduate CS student, with a bit of experience in Google Earth Engine.

Tandy Dang graduated from UCR this summer and is now an incoming graduate student.

Presentation

Janet gave a quick overview of **QGIS**, which is free open-source software for GIS. The slides from the presentation can be viewed here. The presentation covered:

- the benefits and drawbacks of using QGIS
- background on its origin and evolution; works on multiple operating systems
- QGIS is comparable to ArcGIS Desktop or ArcGIS Pro; it also has a few field apps
- some of the similarities with ArcGIS desktop applications
- the layout of the interface
- plugins
  - add them to perform specialized functions
  - search for the plugin(s) you need
  - read the description, and see the number of installs and user ratings
- the choices to make before you download QGIS from the website
  - operating system

    - long-term (stable) or latest release
    - 32-bit or 64-bit
    - standalone installer or OSGeo4W (for Windows)
- ➢ the need to verify that the documentation you're consulting is up-to-date; significant reconfiguration of the platform happened around 2017

Resources shown on the last slide:

- Website: https://www.qgis.org/en/site/
- For a Training manual or User guide: https://www.qgis.org/en/docs/index.html
- Peer support: https://gis.stackexchange.com/ (type QGIS in the search box)
- Comparison of ArcGIS to QGIS: https://gisgeography.com/qgis-arcgis-differences/
- Duke University library guide: https://guides.library.duke.edu/QGIS
- **Introduction to QGIS** workshop, UCR Library, recorded 10-29-20 https://www.youtube.com/watch?v=3tO3km_5VqQ&list=PLaDWxNwvAu5ZVugG8KNZWoC544Vr3lZqD&index=8&t=703s

Ahmed shared that he likes using QGIS. It can be used by anyone at no cost, no matter what operating system they have. He also likes that some processes have command line options in addition to tools; this is handy when the same process has to be run on multiple files.

Chima shared in the chat that QGIS is well-known in Ghana.

Discussion

Tandy asked what are some of the typical applications of GIS?
Among the responses: cartography, analyzing spatial patterns and correlations, assessing change over time, extracting data from imagery, routing traffic or first responders, modeling, and finding the closest feature. GIS is used to create maps regarding the pandemic and other public health concerns, monitoring wildfires, food deserts, species distribution, poverty, impacts of climate change, etc.

Canserina framed it as approaching GIS with a problem to solve that involves location. Examples: how severe are the coronavirus outbreaks in my area? If pollution is detected in a river, where is it going and who will be impacted? What are current crime patterns in an area and what might predict future patterns?

Fletcher was curious about the Geospatial/GIS Quarterly story map. Janet said it only took a few hours to put it together, and demonstrated how the author can preview the story map's appearance on a cellphone or tablet. Canserina mentioned that story maps can also include maps, videos, images, and other content. She provided links for a tutorial for making a story map, and what the resulting story map in the tutorial would look like:
https://learn.arcgis.com/en/projects/share-the-story-of-an-expedition/ and
https://storymaps.arcgis.com/stories/f953d4489b1d4b4d99f2115eaacea424

Amanda is interested in potentially using a story map for outreach to campus in sharing a map and context for the new locations of drinking water access that are being added.

Map sharing

- FEMA Hazards map: https://hazards.fema.gov/nri/