

The 2nd ACM SIGSPATIAL International Workshop on Geospatial Data Access and Processing APIs (SpatialAPI 2020) Seattle, WA, USA - November 3, 2020

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1 Introduction

With the increasing amount of publicly available geospatial data, the demand on spatial data exploration and analysis kept growing. The SIGSPATIAL community is both a provider of new systems with cutting-edge technology on accessing and processing geospatial data, and a user for all these systems. The SpatialAPI workshop is designed to help the SIGSPATIAL community by growing the knowledge of the existing well-established systems that are available for accessing and processing geospatial data. This includes, but is not limited to, web APIs, programming libraries, database systems, and geospatial extensions to existing systems.

The SpatialAPI workshop provides a platform for API developers to educate the community about their systems. This year, the Covid-19 pandemic introduced a new challenge of how to maintain the interaction between the speaker and the attendees in a completely remote setting. We did not want to run pre-recorded tutorials which defy the idea of the workshop. Thus, we updated our selection criteria this year to consider the suitability for online settings and updated the call-for-proposals accordingly.

2 Submissions and Selection Process

We received six tutorials this year which all got reviewed by our Program Committee members. Each tutorial received two to three independent reviews and we chose three tutorials (acceptance rate: 50%) to be presented in the workshop. All the accepted tutorials received all positive reviews which speaks of the high quality of these tutorials. The final tutorial overviews were published as part of the workshop proceedings [1]. We would like to thank all the program committee members who helped us in the review process.

- Heba Aly - Amazon
- Peter Baumann - Jacobs University/Rasdaman
- Michael Gordon - Ordnance Survey
- Janet Reyes - University of California, Riverside
- Ibrahim Sabek - MIT
- Satish Sankaran - Esri
- Martin Werner - Technical University of Munich

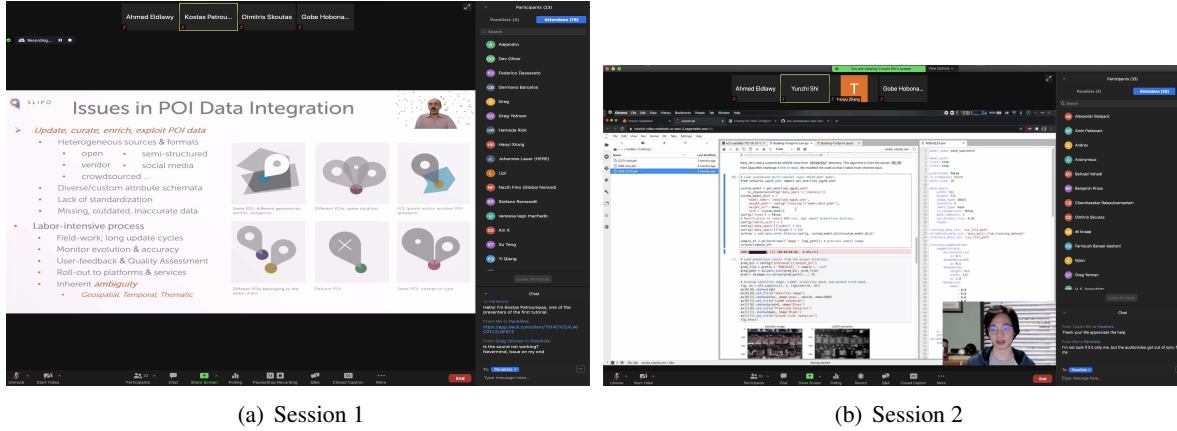


Figure 1: Spatial API 2020 participation

3 Workshop Preparation and Program

To prepare the workshop, we asked each presenter to prepare a Github or a similar page that contains an overview of the tutorial with any required material such as prerequisites, datasets, and source code. We also asked every speaker to prepare a short 5-minute introductory video as a teaser for the tutorial. We were amazed by the quality of these videos and we used them to publicize the workshop and attract more audience to the workshop. All the videos are available on the workshop website [3].

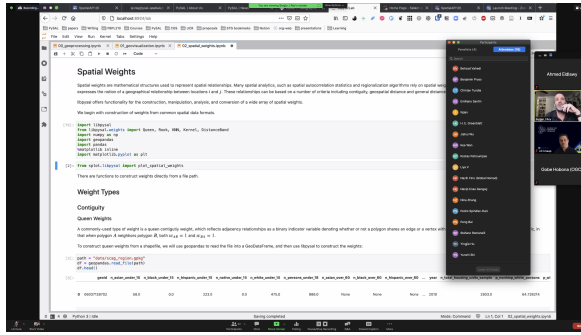
During the workshop, we started with a plenary session where we gave an overview of the workshop goals and logistics. The workshop was delivered entirely online via Zoom. The opening and plenary sessions were pre-recorded. After that, we had three sessions in sequence, one for each tutorial. Each session ran for about 100 minutes. We gave the speakers full control of their session and they all did a terrific job of making use of the online setting. Most of them had partially pre-recorded the tutorial into short sections that were played and then followed by a live section where the attendees can ask questions and the speakers can answer and comment.

The first tutorial presented a system called SLIPO which showed spatial data integration for point of interest data [2]. Figure 1(a) shows a screenshot of the participation during the first session. The second tutorial showed how to apply deep learning on satellite data on the AWS cloud platform [5]. The attendance peaked at 33 participants during the second session as shown in Figure 1(b). The third tutorial presented the PySAL library which runs spatial data analytics using Python [4]. Figure 2(a) shows a part of the PySAL tutorial.

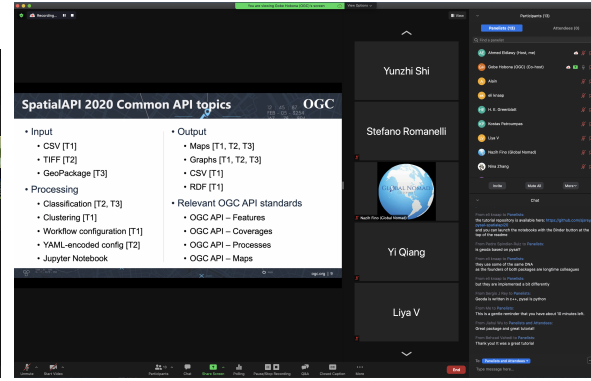
The attendance came out really good with a maximum of 33 participants during the second tutorial which is almost double of the maximum during SpatialAPI 2019. We finished with some concluding remarks where Co-chair Gobe Hobona shared his thoughts about standardization and the role of both academia and industry in the standardization process. Gobe presented a summary of the OGC standards that were used in all tutorials as shown in Figure 2(b). All speakers and attendees actively participated in the discussion.

4 Conclusion

Despite the Covid-19 pandemic, we believe that the speakers and the audience had a positive experience during the SpatialAPI 2020 workshop. We had to update the workshop settings to take this into account but we are thankful to the conference and workshop organizers for their help, the speakers, and the audience. We could not reach these results without the help of everyone. We shifted to one track this year in response to the attendees feedback from last year which we recommend for the future since the audience liked it.



(a) Session 3



(b) Final remarks

Figure 2: Spatial API 2020 participation

References

- [1] *SpatialAPI'20: Proceedings of the 2nd ACM SIGSPATIAL International Workshop on Geospatial Data Access and Processing APIs*, New York, NY, USA, 2020. Association for Computing Machinery.
- [2] M. Alexakis, S. Athanasiou, Y. Kouvaras, K. Patroumpas, and D. Skoutas. Slipo: Scalable data integration for points of interest. In *Proceedings of the 2nd ACM SIGSPATIAL International Workshop on Geospatial Data Access and Processing APIs*, SpatialAPI'20, New York, NY, USA, 2020. Association for Computing Machinery.
- [3] A. Eldawy and G. Hobona. The 2nd ACM SIGSPATIAL International Workshop on Geospatial Data Access and Processing APIs (SpatialAPI 2020), 2020. <https://sites.google.com/ucr.edu/spatialapi20/home>.
- [4] S. Rey and E. Knaap. Workshop proposal: Pysal: Python spatial analysis library. In *Proceedings of the 2nd ACM SIGSPATIAL International Workshop on Geospatial Data Access and Processing APIs*, SpatialAPI'20, New York, NY, USA, 2020. Association for Computing Machinery.
- [5] Y. Shi, X. Chen, and T. Zhang. Cloud-based deep learning on aws open data registry: Automatic building and road extraction from satellite and lidar. In *Proceedings of the 2nd ACM SIGSPATIAL International Workshop on Geospatial Data Access and Processing APIs*, SpatialAPI'20, New York, NY, USA, 2020. Association for Computing Machinery.