



*Geospatial data analytics Lab  
Department of Civil, Environmental and Geodetic Engineering  
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We are looking for one (or potentially two) postdoc researchers to work under the general topic of “multiple 3D data source data fusion, geo-registration and 3D reconstruction”. Specific technical tasks will be assigned on-the-fly with the goal to develop an efficient and robust system to perform high-throughput 3D data geo-registration, fusion and 3D reconstruction. The types of 3D data to be handled include but not limited to: satellite/aerial photogrammetric images, full motion videos, airborne/terrestrial LiDAR data or street-view images. The exact number of hires depends on the funding allocation and task load.

The ideal candidates shall have a strong background in photogrammetry (for high resolution satellite and aerial images) and 3D computer vision, with good knowledge about LiDAR data processing, enthusiastic in programming and have good English communication skills and have prior experiences publishing research results on peer reviewed journals. Specifically, we expect the ideal candidates to be:

- 1) Strong in geometric processing in perspective geometry (e.g. photogrammetry), and have experiences on different types of data. Experiences with RPF models and dense image matching are desirable. Ideally to have degrees in Geomatics, Computer Science and related.
- 2) Proficient in C++ programming
- 3) Have good teamwork and can effectively act as a technical leader.
- 4) Able to commit tasks in a timely manner.
- 5) Ability to work independently and a good sense of leadership development.
- 6) Good communication skills and proficient in English.

The candidates will be responsible for:

- 1) Develop core algorithms and manage system structures for the geo-registration and fusion of multi-data sources.
- 2) Prototyping the developed algorithms on the test of different type of data.
- 3) Publishing the results in relevant peer-reviewed journal papers.

The candidates will be working in the OSU main campus and will be able to co-advise Ph.D. students in completing the project goals, at the same time gain mentorship experiences, and the candidates will work with the PI to co-manage the project, demonstration and develop grant writing skills, experiences, exposed to a wide community of researchers to gain visibilities and be able to attend relevant conferences. As a 100% employee at the Ohio State University, the candidates will be qualified to a variety of benefits including course fee reduction for spouse and friendly international academic environment, for more information, please explore <https://hr.osu.edu/> and <https://u.osu.edu/osupac/>. This is an exciting project and we believe the training opportunity is ideal for early career researchers to grow and step into their next stage of career as future professors either at OSU or other research institutes.



Please send the following materials (well-organized under a zip file) to ([qin.324@osu.edu](mailto:qin.324@osu.edu)) before Feb 15<sup>th</sup>, 2020 to receive full consideration, and the position will be open until filled.

- 1) CV.
- 2) A motivation letter describing why you are interested in this position and why you are the best candidate to this position.
- 3) A sample code that you wrote for dealing with a relevant task that you are confident with.
- 4) A paper that reflects primarily your own effort in terms of ideation and writing.
- 5) Three names of references (note only the names not the recommendation letters)

Please do not hesitate to contact me for any additional questions. Starting time is expected to be mid 2020 but can be negotiate to a certain degree. The duration employment is currently set as two years but extendable.

About Geospatial Data Analytics (GDA) Lab: GDA is established by Dr. Rongjun Qin under a general research background in photogrammetry, 3D computer vision and remote sensing. The goal is to develop advanced algorithms in handling basic geometric processing and advanced semantic processing of all types of geospatial data. For more information please visit: <https://u.osu.edu/qin.324/>.