THE OHIO STATE UNIVERSITY

Geospatial data analytics Lab
Department of Civil, Environmental and Geodetic Engineering
Department of Electrical and Computer Engineering

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We are looking for 2-3 Ph.D. students to work under the general topic of "Semantic 3D Reconstruction from heterogeneous sources". Tentative topics include the following: 1) Photogrammetric/structure-from-motion based real-time 3D reconstruction from video/drone collections. 2) Enhancing quality of 3D mesh models using generative models conditioned from low-res images/models. 3) Efficient algorithms for large-scale, cross-view and unstructured point clouds mesh co-registration and fusion. Specific technical tasks will be assigned on-the-fly but will be highly relevant to the aforementioned tasks. The goal is to develop approaches consisting organic components for building an efficient and robust system for high-throughput 3D data generation, 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, and airborne/terrestrial LiDAR data or street-view images.

The ideal candidates shall have some experiences in one of the following fields: 1) 3D computer vision and photogrammetry; 2) Machine vision. The students should have good communication skills and enthusiastic about programming. The following are desired:

1) A bachelor/Master degree in Geomatics, Computer Science, Mathematics, or related field.
2) Proficient/enthusiastic in programming (C++ preferred)
3) Good sense of Teamwork.
4) Good communication skills and proficient in English.

The candidates will be working in the OSU main campus and can be either registered under Geodetic Engineering or Electrical and Computer Engineering. OSU ranked among the top in geodetic engineering and top 20 in Electrical and Computer Engineering Program. Please send the following materials (well-organized under a zip file) to (qin.324@osu.edu). This application is valid until filled. The candidates are expected to be enrolled in AU20 or SP21.

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) Three names of references (note only the names not the recommendation letters)

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. The GDA support students with aims to educate the best geodetic, vision scientists. Our members have both taken positions in academia and industry (e.g. Google, Pinterest, etc.)

For more information please visit: https://u.osu.edu/qin.324/.