

PostDoc position
on
Verifiable Graph Database Integration

Location : Lyon/France (LIRIS Lab)

Duration : 12 months with a possibility of extension to 24 months

Starting date : Flexible (in 2023)

Application deadline : 3rd November 2023

Context/aim:

Graph database systems are becoming increasingly popular due to their high flexibility. Various graph query languages are being proposed such as Cypher, PGQL, GSQL, and G-CORE, leading to an effort to standardize a graph query language, resulting in two separate standards: GQL and SQL/PGQ.

The aim of this project is to contribute to pin down the foundations of verifiable graph data integration operations by using verification methods specific to algebraic graph transformations and graph rewriting techniques. The targeted study will feature different kinds of property data graph transformations which may occur, for instance, when triggering update operators, processing graph-to-graph queries or performing more complex graph integration processes. For more details, please contact the supervisors below.

We are aiming to hire a postdoctoral researcher, having a PhD in Computer Science. The successful candidate should have a theoretical background and good programming skills. Basic knowledge of First-Order Logic, program verification techniques or graph databases would be a plus. S/he will work in close collaboration with researchers at LIRIS lab (Lyon, A. Bonifati) and LIG lab (Grenoble, R. Echahed), in addition to IRIF (Paris, L. Libkin) in the context of a larger grant supported by the French ANR agency.

Contact at LIRIS (Lyon): Angela BONIFATI angela.bonifati@liris.cnrs.fr

Contact at LIG (Grenoble): Rachid ECHAHED rachid.echahed@imag.fr

Application : Please send the following documents as soon as possible and no later than November 3rd, 2023 to angela.bonifati@liris.cnrs.fr and rachid.echahed@imag.fr

1. CV
2. Short description of qualifications and research interests including full list of publications
3. List of two people who may be contacted for reference letters.