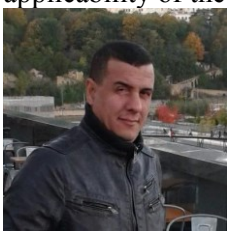
Abstract: The Semantic Web technologies include entailment regimes that produce new RDF data from existing ones. In the presence of access control, once a user has legitimately received the answer of a query, she/he can derive new data entailed from the answer that should have been forbidden if carried out inside of the RDF store. In this talk, we define a fine-grained authorization model for which it is possible to check in advance whether such a problem will arise. To this end, we provide a static analysis algorithm which can be used at the time of writing the authorization policy and does not require access to the data. We illustrate the expressiveness of the access control model with several conflict resolution strategies including most specific takes precedence as well as the applicability of the algorithm for diagnosis purposes.



Bio: Tarek Sayah is a PhD student at université Claude Bernard Lyon 1. His research deals with security in the semantic web. He is working on the design of an access control model for RDF data, in presence of inference.