

Dear Yunyao Li/Lucian Popa

I am writing this statement to express my interest in the opening that has been announced on DBWorld in Jan 2018. I am in my final year of Ph.D. and would be defending in June this year from Universite Libre de Bruxelles (ULB), Belgium & Universitat Politecnica de Catalunya (UPC), Spain. The thesis topic is about temporal graph mining and large graph distributed processing, and it is advised by Prof. Toon Calders from ULB and Prof. Alberto Abello from UPC. As part of my thesis, I have worked on different stream mining data structures, temporal graph analysis, information flow mining in interaction networks, and distributed graph processing. The main focus of the thesis is to design and develop efficient algorithms to analysis temporal graphs and provide distributed processing for such algorithms.

As part of my future research directions, one of the areas I am looking into is knowledge extraction and semantic data architectures. More specifically, I am looking into challenges involved in large-scale RDF stores and how graph databases and distributed graph processing systems could be used for large-scale semantic data stores. Also, using graph-based Entity resolution techniques for large-scale ER problems is something of interest to me.

I have been granted the MSc (2008-2011) in Computer science from CMI (Chennai Mathematical Institute), India. ). My masters was part of a joint program conducted by TCS (Tata consultancy services) and CMI wherein I use to go to university for my Master in Computer science course 2 days a week and work as research and training assistant in TCS for rest of the time.

Concerning my industry experience, I have worked both as a researcher in Industry lab working on prototype projects and also as a technical team lead and architect to take one of the prototypes to market as a hugely successful large-scale system to be used by multiple clients from Education domain. I was the lead Java developer and architect for the design and development of the software projects.

For the last 4 years, I am working with C++, Python, and Scala to develop open source code to provide the implementation of algorithms and data structures developed as part of our research. I also have a huge interest in Machine Learning and looking to work towards fields where my background in large data management and graph processing could help in designing and developing efficient machine learning models for real-world problems. I feel working in IBM research lab will provide me the opportunity to work on real-world application problems where I can apply my knowledge and skill sets for the benefit of my ultimate goal, that is doing what it takes to improve myself and my surrounding.

-Rohit