Keynote Speaker (1)

Ladjel Bellatreche is a Professor at National Engineering School for Mechanics and Aerotechnics (ENSMA), Poitiers, where he joined as a faculty member since Sept 2010. He leads the Data and Model Engineering Team of Laboratory of Computer Science and Automatic Control for Systems (LIAS) (LIAS). His research interests include: Semantic Data Integration; Ontology-based Database Design; Large Database Design; Big Data; etc.

Log Things Analytics: the case of Knowledge Graphs

Abstract. Nowadays, the competitiveness of a company passes through customer satisfaction. Openness, online availability of products and services, and the presence of customer review digital platforms are important strategies to fulfill this requirement. The customer logs hosted by these platforms have become a wealth of information. Several research efforts have been undertaken in the contexts of databases (DB) and the Web, where diverse usages have been developed. After reviewing more than 200 papers covering log exploitation, we were surprised to discover the absence of generic and democratic end-to-end architecture for log multi-usage, especially, if we refer to the democratization of data exploitation architectures. With this motivation in mind, we present in the talk DIALOG -- a generic end-to-end layered architecture, for any log (that we call Thing-log) and any usage, associated with different pipelines: collection, preparation, curation, storage, and usage. DIALOG also considers constraints on logs. Setting this architecture is guided by two objectives: a deep understanding of a thing and its logs and the explainability of DIALOG pipelines. Thanks to our efforts in capitalizing on existing findings on log usage, getting benefits from the maturity and democratization of data exploitation architectures, and the meta-modeling facilities, we propose generic architecture offering three levels of abstraction: Thing, Product, and its instance. To validate DIALOG, we choose Knowledge Graphs (KG) as our product, for their openness, the increasing interest in their logs, and their availability, and DBpedia as its instance, with a topic modeling usage.

Keynote Speaker (2)

Ilham Kitouni Is a Research Associate Professor in the department of IFA, Faculty of New Technologies of Information and Communication, Constantine 2-Abdel Hamid Mehri University, Algeria. She is a Vice Rector in charge of External Relations at the same university since 2019. She current research interests include Formal methods and verification of systems, Internet of Things and Computational Intelligence paradigms.

Vers une société connectée – Contribution de l'université

Abstract. Les dispositifs de l'Internet des objets (IoT) deviennent omniprésents dans la maison, sur la route, dans l'industrie et dans les soins de santé. Cette technologie offre l'occasion de démontrer la pertinence sociale de l'informatique. Les plates-formes IoT d'aujourd'hui sont simplifiées et destinées aux amateurs permettent la création d'applications IoT significatives et réelles ainsi le contexte et les exemples IoT fournissent des terrains de perfectionnement des compétences de pensée critique tout en résolvant des problèmes intéressants du monde réel. Selon un rapport de Statista (04/12/2022), le nombre de dispositifs IoT passera à plus de 29 milliards en 2030 et le manque de confidentialité dans ses dispositifs n'est pas à discuter, les utilisateurs continuent de les adopter, en acceptant les accords de confidentialité attachés. On renonce librement à des informations personnelles pour se connecter à ces dispositifs, y compris l'utilisation d'appareils électroménagers, la sécurité à domicile, l'utilisation d'équipements médicaux à la maison, les véhicules, la voix et la géolocalisation ainsi que les routines personnelles.

Les données qui sont la véritable valeur de l'IoT doivent être protégées et l'éthique devrait être au centre de cette révolution. Quel rôle pour les chercheurs et les universités dans cette révolution et qui ouvrira le débat ?

Keynote Speaker (3)

Hamid Mcheikh is a full professor in Computer Science Department at the University of Québec at Chicoutimi, Canada. He has more than 20 years of experience in both academic and industrial area. He has done his PhD in Software Engineering and Distributed System in the University of Montreal, Canada. He is working on design and adaptation of distributed and smart software applications; designing healthcare framework; and designing smart Internet of Things and edge framework.

Smart Healthcare Framework

Abstract. Today, health framework is reshaping the research in the medical domain due to its potential to concurrently overcome the challenges encountered in the traditional healthcare systems. Prediction of exacerbations of Chronic Obstructive Pulmonary Disease (COPD) is considered one of the most difficult problems in the medical field. Many issues face researchers in the medical domain, such as modelling context (risk factors) of a patient, uncertainty, accuracy of these factors and their relationship, and preventing exacerbations. These issues have been handled in many research projects. However, traditional treatment plan and non-fully automatic applications are still used. The goal of this research is to build reliable mechanism to improve life quality of COPD patients and to protect them against risk factors. In this talk, I will present COPD healthcare architectural framework including context modelling, context representation and rule-based recommendations.