



IRIT

Informatics Research
Institute of Toulouse



Friday 12 October 2018

14h00 – 15h00

UT3 Paul Sabatier, IRIT, Salle des Thèses

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Broad Institute of MIT and Harvard (Etats-Unis)

Matrix Factorization Methods for Multimodal Retrieval

***Abstract:** Many image collections have associated unstructured text that can be used to create search indices. However, creating text indices alone for searching images can fail to produce useful results for certain queries, and also restricts searching by keywords only. Having access to two data modalities can be useful to implement search engines with a variety of functionalities, including query by example. A common strategy to build multimodal search indices is by learning a common subspace between the modalities, where any query can be represented to find objects of any other type. This talk will discuss matrix factorization methods to build a multimodal index for images and text, based on the concept of learning a latent space to represent both modalities in the same reference frame. The relations of this framework with recent deep learning based methods will also be discussed, as well as some applications in web image search and medical image retrieval.*

***Short Bio:** Juan Carlos Caicedo is an associate researcher at the Broad Institute of MIT and Harvard, where he investigates the use of deep learning to analyze microscopy images. Previous to this, he studied object detection problems in large scale image collections also using deep learning, at the University of Illinois in Urbana-Champaign. Juan obtained a PhD from the National University of Colombia doing research in multimodal information retrieval. He completed research internships in Google Research, Microsoft Research, and Queen Mary University of London as a grad student, working in problems related to large scale image classification, image enhancement, and medical image analysis. His research interest include computer vision, machine learning, information retrieval and computational biology.*

Seminar

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