



Séminaire ISIR

Jeudi 21 février à 14H00

Olga Perepelkina

Campus Jussieu, 4 place Jussieu, Paris
Salle H20

Affective computing & Social signal processing: from the academy to industrial cases

Abstract : Automatic emotion recognition is a challenging task due to the various modalities emotions can be expressed with. Data collected from real conversations are difficult to classify using one modality or channel (e.g., face images). That is why multimodal techniques have recently become more popular in automatic emotion recognition. At the seminar, I will talk about multimodal systems for automatic emotion recognition that we develop in Neurodata Lab. I will talk about the approaches that we use in our work, present datasets that we have collected (some of them are open for academic purposes). I will share information about our emotion recognition algorithm comparisons with other commercial APIs (e.g., Affectiva, Amazon, Microsoft). I will show our recently released demo tools for automatic emotion recognition, speaker diarization, heart rate estimation from a video (iPPG). As well, I am going to describe what kind of practical business cases do we have (e.g., multimodal emotion recognition in Customer Analytics (CX)) and discuss the challenges we face.

Neurodata Lab LLC (<http://www.neurodatalab.com/>) is a private full-range R & D Lab with US HQ (Miami), R & D office in Moscow (Russia) and Project Offices in Milan (Italy) and Lucerne (Switzerland).

Short bio : Olga Perepelkina is a Chief research scientist at Research & Development Department of Neurodata Lab LLC and a Ph.D. candidate at the Neuro- and Pathopsychology Department of Lomonosov Moscow State University. Olga is responsible for the scientific direction in the company, she coordinates and conducts databases collection, research in Affective Computing, multimodal systems development and evaluation. She received BS & MS in clinical psychology from Moscow State University (Russia) and currently studies advanced data analysis & deep learning in Higher School of Economics, Faculty of Computer Science (Russia). She worked as a researcher in the Laboratory for Neurophysiology and Neuro-Computer Interfaces (prof. A. Kaplan) and developed brain-computer interfaces for a clinical population. During her PhD, she studied multisensory integration and body ownership and conducted experiments with motion tracking and virtual reality. Her research interests include affective computing, multisensory processing, motion tracking & movement analysis, computational methods in cognitive neuroscience and clinical psychology. She is a member of the International Organization of Psychophysiology and European Society for Cognitive and Affective Neuroscience (ESCAN).