





NLP



































DATAIA PARIS-SACLAY INSTITUTE

Located within the Paris-Saclay University (12th Shanghai ranking), it is the first French ecosystem in Data Sciences, Al and their societal impacts.

MISSION

To bring together multidisciplinary expertise and boost the collective strength of its partners in the Paris-Saclay cluster with the aim of combining big data and Al technologies with social sciences and humanities for an Al at the service of humans.

IN FIGURES





The Industrial Affiliation Plan (PAI) aims to boost the collective strength of the Institute's academic ecosystem and its industrial members. The services offered in response to the respective needs expressed include:

- Joint actions to support research;
- Sharing of experiences and collective needs;
- Facilitated access to recruitment:
- Access to training, seminars, workshops, etc.;
- Implementation of dedicated events (hackathons, challenges, etc.);
- Access to working places to increase exchanges.



The D2C system aims **upstream**, to present the priority research issues and to match them with the problems of industry. **Downstream**, to monitor contacts and opportunities for collaboration identified until they are set up and launched. It is part of the ambition to facilitate the establishment of several levels of collaboration and create a constructive dynamic:

- 1. Expertise / Student projects / Internships
- 2 Research collaborations / CIERE theses
- 3. Joint laboratories / Joint teams
- 4. Multi-partner chairs

OBJECTIVES & PROGRAM

4PM - 4:10PM



- Identification of bio-marker signatures on treatment and disease progression;
- Optimization of biomarker selection by unsupervised analysis on multi-omics data;
- Integration of data from biomedical databased to study gene function.

2 РМ - 2:10 РМ	Introduction
2:10рм - 3рм	DATAIA researchers pitches on prospective research topics followed by industrialists on related issues
3 рм - 4 рм	One-on-one meetings with a view to setting up new collaborations

Conclusion and action plan

DATAIA RESEARCHERS



Extraction, normalization, acquisition of ontologies

Claire Nédellec (INRAE, MalAge)
Integration, querying and classification of biomedical database



Collection of social network data on a private database

Fabian Suchanek (Télécom Paris, LCTI) Data mining, automated reasoning and knowledge bases



Linguistic analysis on knowledge processing and dialogue

Ioana Vasilescu (Paris-Saclay University, LISN) Language analysis, speech recognition and automatic language processing



Cross-reference textual and visual information to define better multimodal representations

Bianca Vieru (CEA-List, LASTI)
Multimedia content extraction, classification
and semantic analysis



Study and application of medical texts

Pierre Zweigenbaum (Paris-Sorbonne University, LISN) Automatic French language processing

DATAIA RESEARCHERS



Knowledge extraction from patents

Sylvain Desroziers (IFPEN) Natural language processing and deep learning



Structured prediction and introducing linguistic knowledge in neural networks

Caio Filippo-Corro (Paris-Saclay University, LISN) Natural language processing and automatic learning



Immediate memory representation, link with neural models

Patrick Paroubek (Paris-Saclay University, LISN)
Evaluation in natural language analysis, text sentiment, chathots



The problem of acquiring knowledge from texts

Fatiha Saïs (Paris-Saclay University, LISN)
Semantic data integration and enrichment, reference reconciliation



Machine translation using statistical methods

François Yvon (Paris-Saclay University, LISN) Symbolic and statistical learning for language and speech processing

DATAIA CLUB PAI COMPANIES



Build a conversational bot to interact and respond to clinicans' enquiries

Diana Batista - Data Scientist Benoît Doreau - Software engineering manager

Renault Group

Explicability of an NLP model based on a pre-entrained language model

Vincent Feuillard - Data Scientist Ayhan Uyanik - Data Scientist



Improving the management of ontologies through databases of clinical trial reports or scientific publications

Maali Minsari - Data Scientist Marc Bianciotto - Data Scientist Kun Mi - Al expert in knowledge graph and DL



NLP tools for processing patent databases

Thierry Dorval - Head of Data Science Lab Sofia Lofti - Data Scientist



Abstractive text summarization on contractuals/technicals documents

Thomas Bourgeois - Data Scientist
Mehdi Rahim - PhD Senior R&D Scientist



Natural language for semantic interoperability between all objects

Thierry Grenot - CEO



Knowledge structuring and graphs in support on ontologies

Charles Borderie - CEO



Navigation and retrieval in the scientific literature

Sylvain Massip - CEO



Conversational search capabilities to multi-languages

José Marcos-Rodriguez - CEO

INSTITUTIONAL PARTNERS



























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