





GENERATIVE AI

































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



- Evaluation of generative AI: qualification of the performance and operation of an algorithm using generative AI on specific use cases;
- Generative AI for text/image generation: radiology, medical reports;
- Generative AI for code generation: new functionalities, ultracustomization, alpha code, bug detection, prompt engineering to generate code in Python, societal impact for service companies;
- Generative AI for design: generate drawings for product design, assistance.

DATAIA RESEARCHERS



Instrumental for the responsible adoption of promising NLP generative methods

Pierre Colombo (CentraleSupélec, MICS)
Robustness of transformers architecture, reliable models
evaluation, fariness to measure bias and correct them



Generative Al for text generation (terminology, natural language, ontology)

Arnaud Ferre (INRAE, MalAge) Acquisition and formalization of knowledge from text



Increase the learning base, simulate patient trajectories, identification of biomarkers, improve the confidentiality of personal data

Blaise Hanczar (UEVE, IBISC) Deep learning, supervised learning, predictive systems, performance evoluation

DATAIA CLUB PAI COMPANIES



Generative AI in the post-processing of medical images

Etienne Perot - Senior Data Scientist



Integration of bio-physical constraints Model improvements by experimental validations

Thierry Dorval - Head of Data Science Lab Jérémy Grignard - Data Scientist



LLM audit and conversational search engine Performance metrics and gain in performance

Data anonymization without loss of performance Code generation

Nicolas Brunet - Scientific Director Julien Roussel - Data Scientist Aymen Mejri - Data Scientist

GUEST COMPANIES



Support for the production of low-code applications

Bruno Berstel Da Silva - CTO Kajetan Wojtacki - Al Engineer



Generative AI for the multi-document scientific summary

Fréjus Laleye - CTO

INSTITUTIONAL PARTNERS

























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