Samuel Reyd

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Junior researcher looking for jobs and postdoctoral opportunities.

Scientific contributions

Journal Papers

- *Searching for actual causes: Approximate algorithms with adjustable precision*, **S. Reyd**, A. Diaconescu, J.-L. Dessalles, Transactions of Machine Learning Research (TMLR), 2026
- *A Comprehensive Evaluation of Neural SPARQL Query Generation From Natural Language Questions*, P. A. K. K. Diallo, **S. Reyd**, A. Zouaq, IEEE Access, 2024

Conference Papers

- *In search of "normality": producing relevant counterfactual explanations for complex behaviors*, **S. Reyd**, A. Diaconescu, J.-L. Dessalles, ACSOS 2026
- *Finding relevant causes in complex systems: A generic method adaptable to users and contexts*, **S. Reyd**, A. Diaconescu, J.-L. Dessalles, ACSOS 2025
- *CIRCE: a Scalable Methodology for Causal Explanations in Cyber-Physical Systems*, **S. Reyd**, A. Diaconescu, J.-L. Dessalles, ACSOS 2024
- *Assessing the Generalization Capabilities of Neural Machine Translation Models for SPARQL Query Generation*, **S. Reyd**, A. Zouaq, ISWC 2023
- *A Copy Mechanism for Handling Knowledge Base Elements in SPARQL Neural Machine Translation*, R. Hirigoyen, **S. Reyd**, A. Zouaq, AACL-IJCNLP 2022

Workshop Papers

- *Interventions Matter: the Role of Sampling Distributions in Detecting Causal Emergence*, **S. Reyd**, A. Diaconescu, J.-L. Dessalles, SISSY@ACSOS 2026
- *A Roadmap for Causality Research in Complex Adaptive Systems*, **S. Reyd**, A. Diaconescu, J.-L. Dessalles, L. Esterle, SISSY@ACSOS 2024

Software Artifact

- `actualcauses` module on PyPI for cause identification, NeurIPS workshop, currently under journal review.

Reviews

- **Journals** — Machine Learning (Springer), 2026; Trees, Forests and People (Elsevier), 2026
- **Conferences** — ACSOS main track 2026; ACSOS poster track 2025; AI4AS workshop at ACSOS 2024

Education

PhD

Oct. 2023 – Nov. 2026

Télécom Paris, IPP, Paris, France

- *From Observations to Explanations: Methodologies for Identifying Relevant Actual Causes in Complex Systems*
- Research topics: actual causation, explainable AI, cognitive relevance, complex systems.
- Supervision: Jean-Louis Dessalles, Ada Diaconescu.

Master's degree

Sept. 2021 – Aug. 2023

Polytechnique Montréal, Montréal, Canada

- *Comparison and study of generalization for SPARQL query generation with pre-trained language models.*
- Fine-tuned and benchmarked Transformer models (BART, T5).
- Supervision: Amal Zouaq.

Engineer's degree

Sept. 2019 – Aug 2023

Télécom Paris, IPP, Paris, France

- Data science and theoretical computer science majors.

Teaching Experience (TA)

Telecom Paris *Nov. 2023 – April 2026*

- **Emergence in Complex Systems** — MSc, ∼20h/year × 3 years
- **Logic, Knowledge Representation, and Probabilities** — MSc, ∼20h/year × 2 years
- **Introduction to algorithmics** — BSc, ∼15h/year × 2 years
- **Algorithmic Information** — BSc, 6h
- **Logics and Symbolic AI** — MSc, 3h

ENSTA Paris *Sept. 2024 – Nov. 2024*

- **Introduction to AI** — BSc, ∼20h

Polytechnique Montreal *Aug. 2022 – Dec. 2022*

- **Natural Language Processing** — MSc, ∼20h

Other Experiences

AI, Science and Society (AI action summit) *February 2025*

École Polytechique, Paris, France

- PhD work group: prepared questions for panelists and contributed to the official "takeaways" document.

Subject classification of surveys *March 2022 – May 2022*

NovaText, Paris, France

- 3-month mission as a student contractor.
- Classified French surveys according to domain-specific themes.

Partnerships and business development *March 2020 - March 2021*

Télécom Etude, "Junior Enterprise" of Telecom Paris, Paris, France

- Managed a four-person team to handle communication and partnerships.
- Handled projects in a regulated professional context with companies such as BCG, KPMG, or Facebook.

Web developer *Dec. 2019 – Dec. 2020*

Forum Télécom Paris, school's recruitment forum organizers, Paris, France

- Maintained the website used to handle the registrations of the companies to the forum.

Skills & interests

Programming	Python, PyTorch, Hugging Face, Git, Prolog, Java, HTML, GDScript
Languages	French (native), English (fluent, TOEFL iBT 106)
Sports	Karate (black belt, Paris champion 2014–2016)
Interests	Video game and web development, cooking, cats