# **Julien Romero**

## Associate Professor

### **SUMMARY**

Applied scientist / ML researcher with **9 years** of experience in **LLMs & NLP, graph learning** (GNNs), **information extraction**, and **recommender systems**. Delivered an **HR recruiter assistant** and a **job recommender** with industry partners. Published SOTA-beating research (EMNLP, ISWC, CIKM). Open-source maintainer (Pyformlang). Seeking Paris-based industry roles where I can turn state-of-the-art methods into reliable products.

#### **EXPERIENCE**

Télécom SudParis - Associate Professor (Applied ML/AI) · 07/2021-Present

- Co-delivered with an HR partner a recruiter assistant and a job recommender; integrated into client CRM; demonstrated measurable lifts over baselines and reduced time-to-shortlist.
- Built a resume augmenter that infers and verifies technical skills from public activity signals; improved discovery of latent skills and downstream match precision.
- Fine-tuned & evaluated language models (Hugging Face Transformers) for temporal QA and knowledge cleaning; optimized prompts/training for latency and cost.
- Led a team of 3 PhD students; managed two industry partnerships end-to-end (scoping → delivery); collaborated closely with engineering/product stakeholders.
- Head of AI programs in Télécom SudParis and IPParis

Max Planck Institute for Informatics - Postdoctoral Researcher · 10/2020-08/2021 · Saarbrücken, Germany

- Scaled **information extraction** over large web crawls; built QA over extracted triples.
  - Fine-tuned LLMs for knowledge discovery and validation; used multimodal signals for verification.

Télécom Paris - Doctoral Candidate (Ph.D. in CS) · 09/2017-09/2020 · France

- Published in top venues; focused on IE, NLP, and graph methods.
- Created **Pyformlang**, a production-quality Python library for formal language manipulation that became the
  most used in its category.

**Haufe-Umantis — Junior Data Scientist** · 01/2017–07/2017 · St. Gallen, Switzerland

• Prototyped **people-analytics** features and recommenders within the HR suite; presented solutions to enterprise clients (incl. **Daimler**).

#### SELECTED PROJECTS

- Explainable Job Recommendation (GNN): Built a heterogeneous graph from résumés, job posts, and behavioral signals; trained a GNN-based ranker with path-based explanations; outperformed strong baselines; deployed as a POC with an HR partner.
- Knowledge Generation & Cleaning with LLMs: Improved precision vs. manual curation and reduced operational overhead.
- **Financial Time-Series with Exogenous Signals:** Integrated news/sentiment features into forecasting models; improved explainability and robustness on large datasets.

#### **OPEN SOURCE**

• **Pyformlang** — Lead maintainer. 53 GitHub stars; ~81k downloads (PyPI / pypistats). Widely used for formal language manipulation in Python; adopted in coursework and research.

## **SKILLS**

- ML & Research: LLMs, NLP, Information Extraction, GNNs, Recommender Systems
- Frameworks: Python, PyTorch, Hugging Face Transformers, LangChain, vector stores
- Data & MLOps: Airflow, Docker, Spark, Kafka, CI/CD, testing, monitoring, SQL/noSQL
- **Visualization:** matplotlib, Plotly
- Collaboration: Partner management, mentoring

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### **LINKS**

linkedin.com/in/romerojulien github.com/Aunsiels huggingface.co/Aunsiels Google Scholar

#### **EDUCATION**

2017 - 2020, Télécom Paris Ph.D. in Computer Science 2015 — 2017, ETH Zürich M.Sc. in Computer Science 2013 — 2015, Télécom Paris M.Eng. in Computer Science

### **LANGUAGES**

- French (native)
- English (fluent)