Corentin Léger - AI Research Engineer

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Research Engineer with a strong foundation in Machine Learning and Software development, particularly interested in Reinforcement Learning, LLMs, Evo Strategies and multi-agent systems. I am looking for a challenging PhD position related to these fields for 2026.

SKILLS

- **Programming**: Python, Git, Linux, Web Development, Cloud Computing, CI/CD

- **Frameworks**: Jax, Numpy, PyTorch, TensorFlow, Scikit Learn, Optuna, Hydra, Pandas, Flask, Gym

EXPERIENCE

- **Huawei**   Paris, France
  Research Engineer, Noah's Ark Lab   *Mar 2025 - Present*
  - Apply LLMs (vLLM) with ML methods (sklearn) to automate and optimize Data Science pipelines on tabular datasets
  - Design and implement feature engineering and selection algorithms to optimize model performance on preprocessed datasets.

- **Inria**   Bordeaux, France
  Research Engineer, Flowers Team   *Dec 2023 - Jan 2025*
  - Co-developed the Open-Source LLM-Culture software to simulate and analyze text evolution in LLM-based multi-agent systems [2]. The system models agent interactions based on neighbors outputs, task, and personality across generations. Built NLP (SpaCy, NLTK) and data visualization tools to evaluate text properties, as well as a web interface.
  - Contributed to a paper (ICLR 2025) exploring biases and attractors in multi-turn LLM interactions (telephone games) [1].
  - Co-Developed a Vivarium, a multi-agent simulator built in Jax for AI research and teaching, achieving real-time interaction with Web or Jupyter notebook clients. Supervised an intern and used the simulator in a Master's course at UPF Barcelona.

- **Inria**   Bordeaux, France
  AI Research Intern, Flowers and Mnemosyne Teams   *May 2023 - Nov 2023*
  - Developed ER-MRL, a Meta-Reinforcement Learning method that optimizes RNNs with Evolutionary Strategies, in order to improve Deep RL agents' adaptability in new environments [3] (Sb3, Gym, Optuna)
  - Created a tutorial for parallelized hyper parameter search in the open source ReservoirPy library (500+ stars).

- **Connectiv-IT**   Bordeaux, France
  Data Scientist Intern   *May 2022 - Aug 2022*
  - Applied Pandas and Scikit-Learn to preprocess helicopter maintenance data, performing cleaning, outlier detection and imputation. Used statistical analysis (SciPy) and clustering (Scikit-Learn) to identify key trends in maintenance data.

PUBLICATIONS

- [1] When LLMs Play the Telephone Game: Perez, J., Kovač, G., Léger, C., Colas, C., Molinaro, G., Derex, M., Oudeyer, P. Y., Moulin-Frier, C. (2024). ICLR 2025
- [2] Cultural evolution in populations of Large Language Models: Perez, J., Léger, C., Ovando-Tellez, M., Foulon, C., Dussauld, J., Oudeyer, P. Y., Moulin-Frier, C. (2024). Arxiv
- [3] Evolving Reservoirs for Meta Reinforcement Learning: *Léger, C., *Hamon, G., Nisioti, E., Hinaut, X., Moulin-Frier, C. (2024). EvoAPPs (Long Talk)
- [4] Early Empirical Results on Reinforcement Symbolic Learning: Radji, W., Léger, C., Bardisbanian, L. (2023). HAL Inria

SELECTED PROJECTS

- Open Source Contributions: Fixed several issues in Stable-Baselines3 RL library (10k+ stars). Contributed to KanRL, helped creating this app to interpret RL policies, and benchmarked PPO and Policy Gradient algorithms with KANs.

- Hackathons: Optimized multi-LLM agent systems on maths tasks with evolutionary algorithms, led to creation of a Start-Up. Won the 2023 and 2024 versions of Hack1Robo for analyzing text evolution in populations of LLMs, and for optimizing persuasion capacities of LLMs with evolutionary strategies. Trained robotic arms with RL at HuggingFace LeRobot hackathon.

EDUCATION

- **Ecole Nationale Supérieure de Cognitique**   Bordeaux, France
  Master of Science in Computer and Cognitive Sciences; GPA: 4.00   *Sept. 2020 – Sept. 2023*
  Activities: Bronze medal at French University Volley-Ball Championship 2023

- **Cycle Préparatoire de Bordeaux (CPBx)**   Bordeaux, France
  Bachelor of Science in Mathematics and Physics, Sport-Study contract with ASI Volley-ball   *Sept. 2018 – Jun. 2020*