

Job opening: Two postdoctoral fellowships for the InfantSimulator project

Job description

The Cognitive Machine Learning team of the Ecole des Hautes Etudes en Sciences Sociales and Ecole Normale Supérieure (PSL University) seeks to recruit **two postdoctoral researchers** at the intersection between human and artificial intelligence to work within the ERC-funded *InfantSimulator* Project.

InfantSimulator investigates the computational mechanisms enabling young children to learn their native language(s) much more efficiently and robustly than current AI systems. The successful candidates will be integrated into a multidisciplinary team comprising language scientists, developmental psychologists, and machine learning experts.

They will develop metrics to compare human and machine learning in speech, language, and grounded communication skills. They will analyze and/or modify cutting-edge machine learning architectures developed by the team and compare them with existing experimental and observational data in young children. If interested, candidates may participate in the teams' activities in (co)advising master and PhD students and/or teaching.

Research context

The Cognitive Machine Learning (CoML) team, a vibrant team composed of 10-15 people at the heart of the Quartier Latin in Paris, was established 10 years ago by Emmanuel Dupoux with the aim to *reverse engineer* human learning abilities using AI techniques. The team is inserted internationally, in a network of academic and industrial collaborators (META FAIR, Google Brain, INRIA teams), and locally in the [Data Science Center](#) and in [Laboratory of Cognitive and Psycholinguistic Sciences \(LSCP\)](#), a CNRS research unit with expertise in language and baby science hosted in the interdisciplinary [Department of Cognitive Studies \(DEC\)](#) of the Ecole Normale Supérieure.

Requirements

We expect candidates with a strong background in machine learning, statistics, linguistics, cognitive science, or a combination of these fields (PhD level required). The candidates must also be proficient in high-level languages like Python or R. Familiarity with language or early cognitive development would represent a strong advantage. Excellent communication skills, team spirit, and an ability to work in autonomy are essential; open science experience is highly valued, as well as an appetite for multidisciplinary and the ability to think outside of the box. Fluent English, both spoken and written, is required.

Salary:

The salary will be adjusted to the candidate's post-doctoral experience (salary range 2,400-3,000 euros/month net before income taxes).

Start date:

The positions would start in the fall of 2024 or early 2025, are funded for up to **4 years**, and include a relocation package.

Applications and requests for information:

Review of applications will begin on **July 15, 2024**, on a rolling basis. Please send to syntheticlearner@gmail.com

- a complete CV,
- a 1-page cover letter explaining how you fit the requirements mentioned above,
- a 2-page research statement explaining the research directions you hope to explore in the next two years,
- a sample of your own writing (e.g., a publication you wrote),
- (a link to) a sample of computer code you produced
- contact information of two references

Feel free to contact us for more information!