Offer #2025-08848

Post-Doctoral Research Visit F/M Post-Doctoral Research F/M embodied conversational agents with adaptive personality

Contract type : Fixed-term contract

Renewable contract : Yes

Level of qualifications required : PhD or equivalent

Fonction : Post-Doctoral Research Visit

Context

Within the framework of a large international project on adaptive personality in conversational agents,, Inria is responsible for investigating the impact of interpersonal factors on the display of personality, in people and in conversational agents that interact with people. This involves collecting a corpus of dialogues by groups of 4 people, whose personality traits will have been assessed, and who will work on a series of 3 tasks. (to match the corpora collected in other languages). The corpus will then be annotated and analyzed for the impact of various psychological, linguistic, and interpersonal factors such as the strength of social bonds among the interactants, the personality traits of the different members of the group, the nature of the task, and so forth, on the verbal and nonverbal display of personality. Results will then be applied to the implementation of embodied conversational agents that represent the results, and the agents will be tested in interaction with people to assess the impact of "interpersonality" on the success of human-machine interaction.

Assignment

The successful candidate will participate in and guide:

Reading and summarizing relevant prior research
The collection of data, and rigorous construction, annotation, and dissemination of a corpus of human-human multiparty task-oriented interaction.

The statistical and machine learning analysis of the multimodal data to understand the ways in which psychological, linguistic, and interpersonal factors impact the display of personality traits.
The development of machine learning models of the phenomena
The implementation of those models in end-to-end embodied conversational agents
The writing of reports for the project partners, and publication of results in top-tier journals

As a part of this research initiative, the successful candidate will be responsible for managing younger scholars, such as PhD and masters students as well as study engineers.

For a better understanding of the context in which this novel research is carried out, candidates can consult publications on SARA (the Socially-Aware Robot Assistant and other more recent LLM-based dialogue topics found here: *<http://articulab.hcii.cs.cmu.edu/publications/>*.

Main activities

Main activities :

Spearhead data collection and data management.

Take the initiative to discover and develop novel pertinent annotation and analysis methodologies

Play a key role in collaboration with research partners.

Regularly write documentation and reports for the local team and research partners.

Write and publish on the research.

Additional Activities :

Take the initiative to maintain contact and understand requirements of research partners Manage and support younger scholars.

Prepare slides and demos for conferences, partners and visitors.

Skills

Technical skills and level required :

Background and research experience in computational linguistics, dialogue systems, and/or conversational agents
Solid competence in machine learning methods for data analysis and for implementing end-to-end dialogue systems
Ability to manage younger scholars
History of publications in top venues
Preference will be given to candidates who demonstrate experience with multimodal data

Languages :

High-level written and spoken English is required. Knowledge of French is a plus.

Relational skills :

Ability to work in a team, and collaborate with others from different disciplines and backgrounds.
Ability to work independently.
Ability to manage other team members
Theoretical background in one or several of the following fields is required:
cognitive science, linguistics, sociolinguistics, Psychology, Computer science

Benefits package

- Subsidized meals
- Partial reimbursement of public transport costs
- Leave: 7 weeks of annual leave + 10 extra days off due to RTT (statutory reduction in working hours) + possibility of exceptional leave (sick children, moving home, etc.)
- Possibility of teleworking and flexible organization of working hours
- Professional equipment available (videoconferencing, loan of computer equipment, etc.)
- Social, cultural and sports events and activities
- Access to vocational training
- Social security coverage

General Information

- **Theme/Domain :** Data and Knowledge Representation and Processing
  Data production, processing, analysis (BAP D)
- **Town/city :** Paris

- **Inria Center :**
- **Starting date :** 2025-07-01
- **Duration of contract :** 2 years
- **Deadline to apply :** 2025-05-31

Contacts

- **Inria Team :** ALMANACH
- **Recruiter :**
  Etling Sophie / sophie.etling@inria.fr

About Inria

Inria is the French national research institute dedicated to digital science and technology. It employs 2,600 people. Its 200 agile project teams, generally run jointly with academic partners, include more than 3,500 scientists and engineers working to meet the challenges of digital technology, often at the interface with other disciplines. The Institute also employs numerous talents in over forty different professions. 900 research support staff contribute to the preparation and development of scientific and entrepreneurial projects that have a worldwide impact.

> **Warning** : you must enter your e-mail address in order to save your application to Inria. Applications must be submitted online on the Inria website. Processing of applications sent from other channels is not guaranteed.

Instruction to apply

Defence Security :
This position is likely to be situated in a restricted area (ZRR), as defined in Decree No. 2011-1425 relating to the protection of national scientific and technical potential (PPST).Authorisation to enter an area is granted by the director of the unit, following a favourable Ministerial decision, as defined in the decree of 3 July 2012 relating to the PPST. An unfavourable Ministerial decision in respect of a position situated in a ZRR would result in the cancellation of the appointment.

Recruitment Policy :
As part of its diversity policy, all Inria positions are accessible to people with disabilities.