

Job Profile

POSTDOC 24 months Project DISCOBOT — An engaging discussion robot for mental health preservation

1- Context

The École Nationale d'Ingénieurs de Brest (ENIB) operates under the supervision of the French Ministry of Higher Education and Research (MESR). Computer Science research in the school takes place at the CNRS UMR Lab-STICC: <https://labsticc.fr/en>.

The person recruited will carry out research at the Lab-STICC within the COMMEDIA (<https://labsticc.fr/fr/equipes/commedia>) and RAMBO (<https://labsticc.fr/fr/equipes/rambo>) teams, which are jointly leading this project.

The person recruited will work under the guidance of Anne-Gwenn Bosser (ENIB, Lab-STICC COMMEDIA), Mihai Andries and Christophe Lohr (IMT Atlantique, Lab-STICC RAMBO).

2- Project

The proportion of socially isolated elderly is rising steadily. Social isolation comes with accelerated cognitive decline. Lack of dialogue is a particular contributory factor, having an impact on the impoverishment of a person's vocabulary. One of the solutions being explored to solve this problem are conversational agents. Despite pilot studies on the use of conversational agents in clinical psychological therapy showing promises, there remains a high drop-out rate due to the lack of long-term commitment to communication with the conversational agent.

The aim of this project is to develop a long-term engaging conversational agent by combining a personality model and the ability to adapt to the user. The project will use a social robot as a platform.

3- Dates

A first application deadline is on the 15 April 2024, and if recruitment is unsuccessful, we will continue to accept ongoing applications. The project will start upon recruitment, ideally by the 1st September 2024 and at the latest on the 2nd January 2025.

4- Application criteria

Eligibility criteria apply: applicants (1) must have spent at least 18 months out of France between 1 May 2020 and the start of the project, and (2) must have defended their PhD thesis less than 5 years ago.

Profile

The ideal candidate holds a PhD in computer science in the field of conversational agents or dialogue planning.

Desired Knowledge

Scientific English (reading, writing, speaking), Natural Language Processing, Knowledge Graphs, Dialogue Planning.

Desired Skills

Language processing libraries (e.g. spaCy, nltk), graphical databases (e.g. neo4j), ontologies (e.g. ConceptNet), use of Large Language Models, experience with ROS (optional).

Languages

Knowledge of English is required.

Knowledge of French is an advantage, but is neither necessary nor a selection criterion.

5- Keywords

Keywords characterizing the teams within which the research will take place are:

COMMEDIA: Adaptive Interfaces, Affective Computing, Cognitive Models, Computational Narratives, Embodiment, Animated Conversational Agents.

RAMBO: Cognitive Robotics, Ambient Assistance System, Human-Robot Interaction.

6- Main place of work

ENIB, European Center for Virtual Reality, Technopôle de Plouzané.

The school is located in the Technopôle Brest-Iroise, on the ocean front and a close neighbour to the IMT School where the other participants of the project are located.

Brest is a culturally active city with a strong seaside vibe. It has a well-developed public transportation network, and the cost of living regularly places it at the top of the rankings of least expensive student cities.

7- Salary

2850 € gross per month (approx. 2400 € net).

Benefits: Reimbursement of half of transportation pass.

Contacts, how to apply

Please send

- CV
- motivation letter
- PhD defence report or equivalent
- recommendation letter

by email with the subject "DISCOBOT application" to:

- Mihai Andries: mihai.andries@jimt-atlantique.fr
- Anne-Gwenn Bosser: bossier@jenib.fr
- Christophe Lohr: christophe.lohr@jimt-atlantique.fr