Offer #2024-07894

Post-Doctoral Research Visit F/M Improving Argument Mining by Synthesizing Contextual Information

Contract type : Fixed-term contract

Level of qualifications required : PhD or equivalent

Fonction : Post-Doctoral Research Visit

About the research centre or Inria department

The Inria center at Université Côte d'Azur includes 42 research teams and 9 support services. The center's staff (about 500 people) is made up of scientists of different nationalities, engineers, technicians and administrative staff. The teams are mainly located on the university campuses of Sophia Antipolis and Nice as well as Montpellier, in close collaboration with research and higher education laboratories and establishments (Université Côte d'Azur, CNRS, INRAE, INSERM ...), but also with the regional economic players.

With a presence in the fields of computational neuroscience and biology, data science and modeling, software engineering and certification, as well as collaborative robotics, the Inria Centre at Université Côte d'Azur is a major player in terms of scientific excellence through its results and collaborations at both European and international levels.

Context

Team SPARKS/WIMMICS

Assignment

In the context of the CIIAM project (Contextual Information Inference for Argument Mining), funded *through the France 2030 investment plan managed by the National Research Agency (ANR), as part of the Initiative of Excellence Université Côte d'Azur*, aiming to enhance the robustness of argument mining techniques through the synthesis of contextual information relevant to multimodal aspects of communication.

We invite doctoral candidates nearing completion of their thesis and young PhD graduates to apply for a postdoctoral position on "Improving Argument Mining through the Synthesis of Contextual Information" (12 months).

Main activities

Understanding argumentative structures in natural language inputs is a key step for many tasks in the field of Natural Language Processing (NLP), such as automatic summarization or analysis of political debates. Although significant progress has been made with the advent of pre-trained language models, they do not always grasp all the linguistic knowledge necessary for fine contextual understanding and the establishment of relevant inferences. Faced with these limitations, our project aims to explore the inclusion of linguistic analysis dimension related to pragmatics. This approach is particularly innovative because pragmatics, due to its complexity in formalization, has been scarcely studied from a computational perspective. It is through the use of the latest cutting-edge prompting techniques that we aim to overcome the pitfalls of existing methods, such as cultural variability and implicit knowledge.

Skills

Technical Skills: Python, Basics of Natural Language Processing (NLP), Neural Networks (including Graph Neural Networks)

Languages: French and/or English

Interpersonal Skills:
- Effective Communication: Proficient in English, both in comprehension and written expression.
- Strong Time Management and Organizational Abilities.
- Demonstrated Adaptability and Flexibility in varied work environments.

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
- Contribution to mutual insurance (subject to conditions)

Remuneration

Gross Salary: 2788 € per month

General Information

- **Theme/Domain :** Data and Knowledge Representation and Processing
  Information system (BAP E)
- **Town/city :** Sophia Antipolis
- **Inria Center :** Centre Inria d'Université Côte d'Azur
- **Starting date :** 2024-10-01
- **Duration of contract :** 1 year, 1 month
- **Deadline to apply :** 2024-07-24

Contacts

- **Inria Team :** WIMMICS
- **Recruiter :**
  Ollagnier Anaïs / anais.ollagnier@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.

The keys to success

Natural Language Processing

Machine Learning

Knowledge in prompt engineering, knowledge graphs, social media data, and hate speech detection would be beneficial.

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.