Offre n°2024-08332

PhD Position F/M Multilingual and cross-cultural automatic analysis of argumentation structures in political debates

Le descriptif de l'offre ci-dessous est en Anglais

Type de contrat : CDD

Niveau de diplôme exigé : Bac + 5 ou équivalent

Fonction : Doctorant

Contexte et atouts du poste

The PhD will be supervised by Benoît Sagot and Chloé Clavel at Inria (Inria Paris centre) in the ALMAnaCH project-team (http://almanach.inria.fr/index-en.html) and by a specialist of political discourse from Sciences Po. It will be financed by several grants secured by Benoît Sagot.

Mission confiée

PhD topic

Logical fallacies in political debates are extremely present, both as errors in reasoning and as means for propaganda and spreading disinformation. Therefore, their detection has been addressed in the field of argument mining (AM). In particular, this subject falls between the realms of Natural Language Processing (NLP) - specifically AM; theoretical informatics, specifically argumentation theory; and political sciences. While the application and development of NLP techniques are necessary for the detection and the generation of arguments and their fallacies, the theory of argumentation in AI is its necessary foundation. The underlying Argumentation Framework (AF) is necessary to develop robust and explainable algorithms for the detection of argumentative fallacies. When focusing on the presence and leverage of fallacies in the political discourse, the connection to political and social sciences is evident.

In particular, this Ph.D. thesis aims to detect formal and informal logical fallacies in a multilingual corpus of political debates by integrating both argumentation theory and NLP into the detection process. Formal fallacies involve faulty logical reasoning, whereas informal fallacies may have a valid structure or form, but the premises are either untrue or irrelevant. This part of the thesis will expand on some already existing works that already focused on providing a taxonomy of formal and informal fallacies on various corpora, including political debates. The goal will also be to show that the merging of argumentation theory and NLP is a precious strategy to be leveraged for augmenting the performance of machine learning (ML) and large language models (LLMs) in detecting fallacies.

Principales activités

Main activities

The candidate's main activities will include:

- keeping up-to-date with related work on the topic with regular reading
- carrying out research on the topic outlined above, both in the development of new ideas, positioning with respect to related work and validation of the methodology via experiments and analysis
- presenting their work work both internally to colleagues and externally in the form of conference/journal/workshop papers and in the final PhD thesis
- interacting and exchanging with colleagues on related topics

The PhD position is a 3-year funded position to start from the 1st December 2024.

Compétences

They should have a good level in programming (python), experience with neural networks and an interest in natural language processing. A good written and spoken level of English is required. Knowledge of French and/or other languages is a plus.

Avantages

- 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

Informations générales

- **Thème/Domaine** : Langue, parole et audio
- **Ville** : Paris
- **Centre Inria** : Centre Inria de Paris
- **Date de prise de fonction souhaitée** : 2024-12-01
- **Durée de contrat** : 3 ans
- **Date limite pour postuler** : 2024-12-06

Contacts

- **Équipe Inria** : ALMANACH
- **Directeur de thèse** :
  Sagot Benoit / Benoit.Sagot@inria.fr

A propos d'Inria

Inria est l'institut national de recherche dédié aux sciences et technologies du numérique. Il emploie 2600 personnes. Ses 215 équipes-projets agiles, en général communes avec des partenaires académiques, impliquent plus de 3900 scientifiques pour relever les défis du numérique, souvent à l'interface d'autres disciplines. L'institut fait appel à de nombreux talents dans plus d'une quarantaine de métiers différents. 900 personnels d'appui à la recherche et à l'innovation contribuent à faire émerger et grandir des projets scientifiques ou entrepreneuriaux qui impactent le monde. Inria travaille avec de nombreuses entreprises et a accompagné la création de plus de 200 start-up. L'institut s'efforce ainsi de répondre aux enjeux de la transformation numérique de la science, de la société et de l'économie.

L'essentiel pour réussir

The position is a 3-year funded PhD position of starting on the 1st December 2024 at the earliest. Candidates should have a Master 2 or equivalent (e.g. engineering school) in computer science (speciality artificial intelligence, machine learning or natural language processing).

Qualities sought:

We are looking for highly motivated candidates with a strong background in NLP, machine learning and an interest in linguistics and language and in political sciences. Ideally, candidates should be able to show initiative, creativity and have a good eye for analysis of data and results.

To apply:
In your application (which can be in English or in French), please include:

- CV
- Letter of motivation
- Optionally an example of your previous written work (if possible related to NLP), for example a master's thesis, research paper, etc.
- Certificat of Master's/engineering degree and grade breakdown

> **Attention**: Les candidatures doivent être déposées en ligne sur le site Inria. Le traitement des candidatures adressées par d'autres canaux n'est pas garanti.

Consignes pour postuler

Sécurité défense :
Ce poste est susceptible d'être affecté dans une zone à régime restrictif (ZRR), telle que définie dans le décret n°2011-1425 relatif à la protection du potentiel scientifique et technique de la nation (PPST). L'autorisation d'accès à une zone est délivrée par le chef d'établissement, après avis ministériel favorable, tel que défini dans l'arrêté du 03 juillet 2012, relatif à la PPST. Un avis ministériel défavorable pour un poste affecté dans une ZRR aurait pour conséquence l'annulation du recrutement.

Politique de recrutement :
Dans le cadre de sa politique diversité, tous les postes Inria sont accessibles aux personnes en situation de handicap.