2018-00263 - Intelligent management of a forum for citizen debates

Contract type: Public service fixed-term contract  
Level of qualifications required: PhD or equivalent  
Function: Post-Doctoral Research Visit

About Inria

Inria, the French National Institute for computer science and applied mathematics, promotes “scientific excellence for technology transfer and society”. Graduates from the world’s top universities, Inria’s 2,700 employees rise to the challenges of digital sciences. With its open, agile model, Inria is able to explore original approaches with its partners in industry and academia and provide an efficient response to the multidisciplinary and application challenges of the digital transformation. Inria is the source of many innovations that add value and create jobs.

Context

This post-doctoral position takes place in the context of a collaboration with the startup Bluenove (http://bluenove.com/).

Bluenove develops the collaborative platform Assembl to manage citizen debates about societal issues. The collaboration with the INRIA team Almanach aims to extend Assembl with intelligent modules for a better management and exploitation of the discussions. These modules will in particular rely on fine-grained linguistic analysis of the discussions using NLP tools.

Assignment

Assignments and roadmap:

The work will explore the design of modules first to analyze the content of the discussions taking place during a debate, and then progressively to interact as agents within the on-going discussions.

The analysis part will adress issues such as the construction of semantic maps, accurate visualizations of the ongoing exchanges, and help for orienting new participants in a debate (rooting). The analysis will also consider the interactions between the participants and all kinds of stylistic, semantic, and discursive elements to identify the key elements of a thread of discussion (to propose automatic summaries) and to identify the main actors (in terms of ideas, synthesis, coordination, ...)

The interaction part with the participants should progressively propose richer conversational forms (chatbot), by exploiting the analysis of the discussion and a good knowledge of the actors (history, profiles) to get over rigid scripted scenario.

The post-doctoral researcher will have to identify the main issues, to explore and select the best practical solutions, to complete them with his/her own developments, and to run some experimentations and evaluations. Whenever possible and modulo confidentiality issues, he/she will be encouraged to publish.

For a better knowledge of the proposed research subject:

Almanach Web Site: https://team.inria.fr/almanach
FRMG Wiki: http://alpage.inria.fr/frmgwiki

Collaboration:

The recruited person will work in close connection with the engineer recruited for the INRIA-Bluenove collaboration, but also interact with the members of the Almanach team (in particular Eric de la Clergerie) and the people at Bluenove.

Skills

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General Information

- Theme/Domain: Language, Speech and Audio  
- Information system (BAP E)
- Town/city: Paris  
- Inria Center: CRI de Paris
- Starting date: 5/1/18  
- Duration of contract: 12 months
- Deadline to apply: 2/10/18

Contacts

- Inria Team: ALMANACH  
- Recruiter: Villemonte De La Clergerie Eric / eric.villemonte_de_la_clergerie@inria.fr

The keys to success

The postdoc should be passionate by NLP, with enough background about various language-related subdomains and some knowledge of a wide spectrum of potential approaches (including Machine Learning, supervised or not)

The candidate should feel at ease in a research environment but should also be ready to interact with a more industrial environment in the context of the collaboration with Bluenove (a part of the work will take place at Bluenove).

Conditions for application

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.

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.
Technical skills and level required:

- strong competences in Natural Language Processing (Analysis, Information Extraction, Knowledge Acquisition, Discourse Analysis, Automatic Summarisation, Thematic Classification, Opinion Mining, Chatbots, ...)
- competences in Machine Learning (and even better in Deep Learning)
- excellent research track records
- good programming skills

Languages: good level in French and English

Relational skills:

Other valued appreciated:

Benefits package

- Subsidised catering service
- Partially-reimbursed public transport

Remuneration

Salary to be negotiated based on candidate profile and experience.

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