

Post Doc Position – Deep Learning for business process automation

We offer a post-doc position of 1 year, working in a university research environment and in close contact with a start-up aiming to develop products fostering the digital transformation of SMEs and other low-resource organizations.

The Project:

Automation of business processes is a crucial step in the digital transition of organizations. This automation is typically carried out by expert engineers that design and implement the required software solutions, resulting in high costs for companies and organizations going through this transition.

We are aiming at a system that will rely on no-code/low-code platforms to allow non-technical users to create their own solutions by simply describing the process steps using natural language. The system exploits existing deep learning technologies, and fine-tunes them to understand and structure user utterances related to typical actions in a business process.

Moreover, research is planned on the analysis of human-to-human interactions (mail threads, slack conversations, etc) to discover patterns that may correspond to potentially automatable business processes.

Job Responsibilities:

- Study and evaluate existing available Large Language Model (LLM) providers with regard to cost, hardware requirements, integration possibilities, and performance on the tasks at hand
- Work closely with the Linguistic Team to define training needs, model organization, evaluation metrics, etc.
- Extend existing research on potential business process detection in human-to-human interactions.
- Publish performed research in relevant forums

We offer:

- Exciting work environment, in close collaboration with a start-up converting cutting-edge research in everyday technology.
- Possibility of publishing relevant results
- Possibility of remote working

About You

The successful candidate must have:

- Degree in Computer Science, Mathematics, Engineering, or similar
- PhD in Computer Science, Data Science, Artificial Intelligence, or similar.
- Familiarity with Large Language Models
- Effectiveness in the transfer of technical expertise to both colleagues and non-specialists
- Strong written and verbal communication skills
- Good team player
- Interested in carrying out R&D work in contact with a start-up

Desirable:

- Familiarity in software development in Linux environments
- Familiarity in GUI development
- Familiarity with Git versioning systems.
- High programming skills, preferably in Python and/or Clojure

Contact: Lluís Padró (padro -at- cs.upc.edu)