



IDP – NATURAL LANGUAGE PROCESSING

fortiss is the research institute of the Free State of Bavaria for software-intensive systems and services with headquarters in Munich. The institute currently employs around 170 employees, who collaborate on research, development and transfer projects with universities and technology companies in Bavaria, Germany and Europe. Research is focused on state of the art methods, techniques and tools of software development, systems & service engineering and their application to reliable, secure cyber-physical systems, such as the Internet of Things (IoT). fortiss has the legal structure of a non-profit limited liability company (GmbH). Its shareholders are the Free State of Bavaria (as majority shareholder) and the Fraunhofer Society for the Promotion of Applied Research. www.fortiss.org

Project Description:

The process of finding the right personnel for projects is a very time-consuming task that requires the identification of the necessary job positions along with the corresponding employees. Furthermore, subjective criteria highly influence the selection process, which might cause wrong decisions. Automating the identification and selection procedure will on the one hand lead to a data knowledge based approach that relies on objective criteria. On the other hand, an automated process will save a lot of time and costs.

This IDP aims at autonomously identifying job positions from project descriptions. For this purpose, an algorithm has to be developed that reads in textual job tenders, preprocesses them, and subsequently identifies relevant entities for the particular job position. Analogously, the entities from publicly available project descriptions have to be extracted, such that eventually the descriptions can be linked to the required job positions via matching the signature of entities from both sources.

Your tasks:

- Implementation of an algorithm that extracts, reads in, and preprocesses the data.
- Development of a solid concept of how to relate entities from job tenders and project descriptions to find a reasonable matching.

Your profile:

You are a student with programming experience, and interested in machine learning (in particular Natural Language Processing). A reasonable background in software engineering will be also helpful.

Our offer:

Expertise and guidance in machine learning concepts for the design of the framework as well as assistance in programming related issues.

Did we catch your interest?

Please submit your application including a current transcript of records to woermann@fortiss.org.