



Doctoral Thesis: Natural Language Processing for AI based Knowledge Management (SMARTLab) (f/m/div)*

Job description

The industrial doctorate at Infineon: Pursue a doctoral degree at a university and gain professional experience simultaneously - an ideal start for your career. Advance your research with us and profit from our vast network of doctoral candidates and the expertise of a university. Mentorship is handled by both professors and dedicated Infineon employees.

We are offering a doctoral thesis dealing with natural language processing related to Failure Analysis (FA). The FA is a challenging job area supporting the semiconductor fabrication process. In the context of digitalization, we focus on the design and development of knowledge-based systems guiding the FA staff by providing important information related to their activities. The novel systems should be able to combine various knowledge representation and reasoning techniques with machine learning approaches to process, store, retrieve, navigate, and recommend the information when it is required by the FA personnel.

In your new role you will:

- **Work** in connection **with FA experts** to design knowledge bases formalizing their knowledge about the fault analysis process
- **Apply machine learning methods** to extract knowledge from databases and file shares
- **Use AI techniques** to identify activities of FA personnel and recommend information sources helping them to accomplish their tasks more efficiently
- **Develop intelligent user interfaces** allowing for a non-invasive knowledge acquisition from FA engineers during their activities
- **Work** in the **international context** of an European project with international partners

We welcome you to join our international team of experts and contribute to novel AI solutions for industry digitalization!

Profile

You are best equipped for this task if you have:

- A **master degree** in the area of **informatics** or equivalent
- **Programming** skills in **Python, R, C#**
- Skills in **knowledge representation** and **reasoning** (Ontologies, Description logic)
- **Query languages** (SPARQL)
- Experience with **machine learning** and **NLP** is a plus
- Understanding of **principles of recommender systems** and **human-computer iteration**
- **Excellent knowledge** of **English** language (German is a plus)

The application should include:

- Your CV

At a glance

Location:	Villach
Job ID:	39991
Start date:	immediately
Entry level:	0-1 year
Type:	Full time
Contract:	Temporary

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Contact

Dr. Maria Pollai-Schlintl
Talent Attraction Manager

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- Motivation letter
- Copy of your master degree certificate if already available
- Otherwise: copy of your latest study transcript

This position is subject to the collective agreement for workers and employees in the electrical and electronics industry. The salary for this position is EUR 2.760,00 gross p. m. (full-time basis).

