synedra

information technologies

Probabilistic Selection of prior medical examinations

Diploma or Master's thesis - 10 to 20 hours per week

Research Question:

Which examination features are necessary for an algorithm to identify relevant previous diagnostic examinations of a patient in a diagnostic system?

In the context of your diploma or master thesis you will explore different methods of machine learning. You are going to work with clinical data sets of the synedra AIM. The data sets originate from healthcare facilities in the DACH region and comprise clinical relevant patient examinations of Imaging Diagnostics (DICOM), such as X-ray examinations, CT or MRI examinations.

The aim of the work is the design of an algorithm for the identification of medically relevant examinations of a patient. If an examination is evaluated by a physician, proposals for relevant preliminary examinations should be provided.

A model should abstract similarities in features, build associations as well as learn combination frequencies of diverse examinations.

You will explore established methods of Natural Language Processing (NLP), evaluate various text representation techniques (feature extraction) and assess their suitability for the clinical context. You will also investigate and evaluate the suitability of various classification and clustering algorithms, for example:

Deep Learning Networks, Bayesian Networks, k-Means Clusters, Recommender Systems, Collaborative Filtering, Contentbased Filtering or Ensemble techniques.

#synedrabenefits

- Flexible working hours
- Home office
- flat hierarchies
- Training and development
- Educational leave
- Sabbatical
- Company pension scheme
- Parking area
- Good transport connections
- Family-friendly environment
- Dogs allowed
- Fully equipped kitchen
- Free coffee and fruits
- Employee events

#synedracontact

Patricia Schafferer, MA
HR Business Partner
jobs@synedra.com

Salary of € 1,300 gross per month on a full-time basis (Kollektivvertrag IT), employment for 6 months, starting date upon agreement

Apply now via our homepage **www.synedra.com/karriere** with your CV and letter of motivation. .

Health Content Management – innovative. sustainable. forward-looking.