



Universiteit
Leiden

PhD candidate Knowledge Discovery and Data Mining from patient experience repositories

Function Description

This PhD project, funded by the Dutch [SIDN fonds](#), is part of the [Patient Forum Miner \(PFM\) research programme](#). Patients often share experiences on internet forums. These experiences often contain valuable information for patients, medical specialists and researchers. This information is hidden in an abundance of messages for emotional support. The aim of the PFM programme is to extract the information which is of real value and to formulate hypotheses which can be input for further clinical research. The aim of this PhD project is to strengthen the scientific basis for the PFM method and develop methods for validation of results found by the text mining process. The PhD candidate will focus on finding new clinically relevant patterns in patient forums using methods for automated semantic annotation, data mining methods and cross-linking with curated knowledge. The end goal is to develop a scientific method for deriving new knowledge from patient experiences. The project is a collaboration with the Leiden University Medical Center and will be embedded in the Leiden University Data Science program.

The PhD candidate will carry out original competitive scientific research, publish results in top conferences and scientific journals, and will participate in teaching.

Profile

- We are looking for a highly motivated university graduate who is a top performer among peers, has an excellent education and/or research track record proven by relevant experience, publications, etc.;
- University degree (Master degree), preferably in Computer Science, Artificial Intelligence, Behavioural Science or Life Sciences;
- Interested in Life Sciences and empirical research methods
- Fluency in spoken and written English, good presentation skills;
- Strong programming skills;
- Experience with data-mining algorithms;
- Being able to work in a (multidisciplinary) team.

Employment conditions

We offer a full-time one year term position with the possibility of three-year renewal after a positive evaluation. Salary range from €2,222 to €2,840 gross per month (pay scale P, in accordance with the Collective Labour Agreement for Dutch Universities).

Leiden University offers an attractive benefits package with additional holiday (8%) and end-of-year bonuses (8.3 %), training and career development and sabbatical leave. Our individual choices model gives you some freedom to assemble your own set of terms and conditions. Candidates from outside the Netherlands may be eligible for a substantial tax break. More at www.workingat.leiden.edu/.

All our PhD students are embedded in the Leiden University Graduate School of Science www.graduateschools.leidenuniv.nl. Our graduate school offers several PhD training courses at three levels: professional courses, skills training and personal effectiveness. In addition, advanced courses to deepen scientific knowledge are offered by the research school.

Diversity

Leiden University is strongly committed to diversity within its community and especially welcomes applications from members of underrepresented groups.

Job specifications

Locatie	Niels Bohrweg, Leiden
Uren	38,0 uren per week
Salary	€ 2222 - € 2840
Vacancy number	17-419
Job type:	temporary contract, 4 years

Employer

[Universiteit Leiden](#)

Leiden is a typical university city, hosting the oldest university in the Netherlands (1575). The University permeates the local surroundings; University premises are scattered throughout the city, and the students who live and study in Leiden give the city its relaxed yet vibrant atmosphere.

Leiden University is one of Europe's foremost research universities. This prominent position gives our graduates a leading edge in applying for academic posts and for functions outside academia.

Department

[Faculty of Science](#)

The Faculty of Science is a world-class faculty where staff and students work together in a dynamic international environment. It is a faculty where personal and academic development are top priorities. Our people are driven by curiosity to expand fundamental knowledge and to look beyond the borders of their own discipline; their aim is to benefit science, and to make a contribution to addressing the major societal challenges of the future.

The research carried out at the Faculty of Science is very diverse, ranging from mathematics, computer science, astronomy, physics, chemistry and bio-pharmaceutical sciences to biology and environmental sciences. The research activities are organised in eight institutes. These institutes offer eight bachelor's and twelve master's programmes. The faculty has grown strongly in recent years and now has more than 1,300 staff and almost 4,000 students. We are located at the heart of Leiden's Bio Science Park, one of Europe's biggest science parks, where university and business life come together. For more information, see <https://www.universiteitleiden.nl/en/science/>.

The Leiden Institute of Advanced Computer Science (LIACS) is the Computer Science Institute in the Faculty of Science of Leiden University. According to our recent research visitation, we are one of the foremost computer science departments of the Netherlands. We strive for excellence in a caring institute, where excellence, fun, and diversity go hand in hand. For more information about LIACS, see liacs.leidenuniv.nl.

The Leiden Centre of Data Science Research Programme brings together data science with all other academic domains. The Programme is a joint effort of all seven faculties of the University of Leiden. PhD students are playing key roles within the programme. In total, at least 21 PhD candidates will be appointed. They will work on the development and application of data science in various fields of research at Leiden University see <https://www.universiteitleiden.nl/en/research/research-projects/science/data-science>

The SIDN project will be linked to the Data Science Research Programme, which means that the PhD candidate will have access to both the data science and LIACS network of PhD students.

Information

Enquiries or any questions about the procedure can be made to Prof. Wessel Kraaij, w.kraaij@liacs.leidenuniv.nl

Applications

To apply for this vacancy, please send an email to jobs@liacs.leidenuniv.nl . Please ensure that you upload the following additional documents quoting the vacancy number:

- A curriculum vitae;
- A motivation letter;
- A (link to a draft of) Master's thesis, and other publications;
- A maximum of three references (who agreed to support the applicant).

The position remains open until filled.