

FULL-TIME ACADEMIC POSITION IN DATA SCIENCE AND DATA ENGINEERING

BRUSSELS SCHOOL OF ENGINEERING - ECOLE POLYTECHNIQUE DE BRUXELLES

Reference : 2017/Axxx

Application deadline:

Start date: 01/10/2020

Job description

The School of Engineering (EPB) of the Université Libre de Bruxelles (ULB) offers a full-time academic position in the area of Data Science and Data Engineering.

The candidate will be integrated in the WIT laboratory of the Department of Computer and Decision Engineering (CoDE). The CoDE department has a track record of cutting-edge research in big data processing, data management, business intelligence, mobility data management, stream processing, swarm robotics, optimization and decision engineering and is well-equipped for research in these areas. The department strives for excellence in its research and education, as witnessed by its two ERC grant holders and the organization of the Erasmus Mundus Joint Master in Big Data Management and Analytics and Joint Doctorate Information Technologies for Business Intelligence doctoral college.

The position is solicited to complement the existing expertise in the department and school with expertise in large-scale data science, data mining, prescriptive analytics, data engineering and/or data visualization.

The selected candidate is expected to contribute to the general duties and growth of the department and school. This includes teaching classes at the bachelor and master's level, the supervision of student projects, master theses and Ph.D. students, as well as launching and seeking funding for new research projects.

Area of Research:

Computer Science, focusing on Data Science and Data Engineering.

The applicant has to have strong academic credentials and a strong publication record that demonstrate his/her expertise in the field. Expected publication venues include conferences such as: VLDB, SIGMOD, SIGKDD, ICDM, PODS, ICDT, EDBT, ICDE, ECML/PKDD, and journals such as: ACM TODS, ACM TKDD, IEEE TKDE, DMKD, and VLDB Journal.

Educational and scientific goals:

The candidate is expected to reinforce the research of the CoDE department by initiating and conducting research in data science and data engineering that is related but complementary to the department's current research. Specifically, we invite applications from candidates with academic research expertise in one or more of the following disciplines of data science and data engineering: *data mining, process mining, predictive data analytics, deep learning, data wrangling, scalable data management, advanced query*

processing (e.g. approximate query processing), large-scale data analysis systems, data integration and interoperability, Big Data systems, data visualization.

The candidate should be able to demonstrate a track research record in one or more of these disciplines, commensurate with their career stage.

The successful applicant will develop research activities in the domain of expertise in collaboration with the other members of the WIT laboratory as well as with other teams of the EPB.

The successful candidate is expected to launch, and seek funding of, new research projects in the domain of expertise. In this context, the applicant will be invited to apply for a grant from the European Research Council (ERC) and for any sources of outside funding (the Brussels Institute for Research and Innovation, the Fonds National de la Recherche Scientifique, European Commission, Regional funds, ...). The candidate will receive support from the ULB Research Department in this respect.

Educational goals:

The successful candidate is expected to teach at the Bachelor and Master level in the programs offered at the Brussels School of Engineering. Specifically, the candidate will be involved in the program Civil engineering in Computer Science, the Erasmus Mundus Joint Master on Big Data Management and Analytics, and the specializing Master in Data Science and Big Data. All courses in these master programs are taught in English. Teaching at the bachelor level is in French.

The WIT laboratory coordinates the organization of Erasmus Mundus Joint Master on Big Data Management and Analytics (BDMA, <https://bdma.ulb.ac.be/bdma/>). As member of the WIT laboratory, the successful candidate is expected to take on duties to help in the coordination and organization of BDMA.

The teaching duties include lectures, as well as exercise and laboratory sessions. Proposing and supervising students' projects and master theses are part of the position.

Courses covered at the time of recruitment : *(liste ou description des UE)*

The successful applicant will be expected to have sufficient expertise to teach the following courses (lectures and/or practical sessions)

- INFOH420 Business Process Management (at the Master level, offered in the program Civil engineering in Computer Science; master in Computer Science; and the Erasmus Mundus Joint Master on Big Data Management and Analytics)
- INFOH423 Data Mining (at the Master level, offered in the in the program Civil engineering in Computer Science; master in Computer Science; the Erasmus Mundus Joint Master on Big Data Management and Analytics; and the specializing Master in Data Science and Big Data)
- INFOH600 Computing Foundations of Data Sciences (specializing Master in Data Science and Big Data)

Teaching duties may be reviewed periodically and are subject to modification over time.

Qualifications required:

PhD Degree (with doctoral thesis) in Engineering (specialisation Computer Science) or Computer Science

Skills required

- Applicants should have at least 4 years of research experience at the time of their recruitment.

- Post-doctoral experience and an excellent scientific record are a plus.
- Exchange periods outside of the applicants' home institution (during or after their PhD) will be taken into consideration when evaluating applications.
- Applicants who do not speak French (level C1) may be granted a period of adaptation, but they must be able to teach in French at the end of the third year following their appointment.
- Required languages:
 - French: Minimum basic to Good
 - English: Minimum good to Excellent
- Career stage: experienced researcher (at least 4 years of experience).

Interested ?

For more information, please contact prof. Esteban Zimanyi (telephone: +32 2 650 31 85 – E-mail: ezimanyi@ulb.ac.be) or prof. Stijn Vansummeren (telephone: +32 2 650 27 50 – E-mail: svsummer@ulb.ac.be).

Applications must be sent by e-mail to the rectorate of the Université Libre de Bruxelles (recteur@ulb.ac.be) and to the faculty deanship (le-doyen-polytech@admin.ulb.ac.be).

They must include the following :

- an application letter
- a Curriculum vitae including a list of publications (a template can be downloaded at <http://www.ulb.ac.be/tools/CV-type.rtf>)
- any relevant documents showing 4 years of research experience
- a 7,000-character report (4 pages) presenting the applicant's research activities and a research project, including how these will integrate into ULB's research teams
- a teaching dossier including a 7,000-character report (4 pages) on the applicant's previous teaching activities and a teaching project for the first five years in this position; these must be relevant to the faculty and to the teaching profiles for the programmes to which the applicant is to contribute
- a note on the applicant's international achievements and projects (no more than 4 pages)
- the names and e-mail addresses of five referees (respecting the gender balance) who may be contacted by those in charge of evaluating applications. These referees should not have conflicts of interest because of family or emotional ties.

By sending in their application, applicants acknowledge they have read and understood the additional information and the regulations relevant to research staff, available at the following address <http://www.ulb.ac.be/emploi/academique.html>.

FICHE ADMINISTRATIVE

qui doit impérativement accompagner la vacance

n° de vacance : 2017/Axxx

Domaine : (liste Paysage)

Discipline : (au choix)

Poste(s) au cadre : 17-x-xxx-xxx (x) (x.xx ETP) / poste SAP

Références CoA : <Grefte>

Rattachement Enseignement : Département/Service (Mnémo + intitulé)

Rattachement Recherche : Centre de recherche/Unité de recherche (Mnémo + intitulé)

EURAXESS SPECIFIC INFORMATION

Main Research Field : (cf liste EURAXESS)

Sub Research Field : (cf liste EURAXESS - facultatif)

Required educational level: Phd Degree in (Degree Field – voir liste domaines EURAXESS)

Required Languages :

Français : (basic – good – excellent – native)

English : (basic – good –excellent – native)

'autre langue' : (basic – good –excellent – native)

Type of contract : temporary

Hours per week : 38

Required Research Experiences : (domaine – voir liste EURAXESS) : (nombre d'années d'expérience)

Researcher profile : Early stage researcher (0-4 years)

Experienced researcher - R3 (4 – 10 years) (vous pouvez laisser les 2 profils si vous le souhaitez)

Additional requirements :

[texte libre où l'on peut renseigner les domaines et disciplines non disponibles dans les listes Euraxess par exemple]