Vrije Universiteit Brussel

Vacancy for Academic Staff

I.	Job Description

Vacancy number (Faculty/Year/number)	ES/2015/0x

Job category ZAP professor/Teaching Staff/AAP/BAP	BAP
Specific terminology - **Tenure Track professor** - **Research professor** - **Lecturer/Senior lecturer/ Professor (Reader)/Full professor** **Teaching Staff** - **Teaching only professor** - **Replacement academic staff** **AAP :** - **Graduate Teaching Assistant** - **Practitioner Teaching Assistant** - **Post-doctoral research and teaching assistant** **BAP :** - **Scientific staff** - **Teaching only assistant** - **PhD Scholarship**	Scientific staff
Scope of appointment: - **Full time** - **Part time (+ %)**	Full time
Faculty/ Principle Administrative Entity	ES
Academic Department/Administrative Unit	Department Business Technology and Operations - BUTO

Company profile

The Vrije Universiteit Brussel has been a leading player in the Flemish Higher Education landscape for 40 years. The University numbers 12.000 students and together with its hospital - UZ Brussel – employs more than 6000 people. The Vrije Universiteit Brussel is the largest Dutch speaking employer in the capital.

Teaching and research at the Vrije Universiteit Brussel are founded on the principle of underlined inquiry to benefit the progress of mankind. This means rejecting dogmatic positions and guaranteeing the freedom to form opinions without interference; in this way the University aims to ensure the dispersal of the principle of unfettered inquiry throughout society.

The University is autonomous and democratically run. This means guaranteeing the exercise of the fundamental freedoms within the University, as well as the right of the University Community to participate in the decision making process and scrutiny of University policy.

The following form part of the University's mission:

- the development, the communication and the application of a high level of academic education and scientific research, free from all preconceived ideas;
- the translation of these ideals and knowledge into society in the spirit of social engagement;
- the creation of a society in which everyone is capable of engaging in critical thinking.

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II.   Vacancy

Subject area **Teaching/research <u>area</u>**	BUTO: Business technology and Operations Data mining, business analytics, authentication, fraud detection
Terms of reference including main tasks - **Teaching** - **Research** - **Other**	***Research*** <u>Keywords</u>: post-doc, business analytics, profit-driven data mining, authentication, fraud detection <u>Description</u>: We seek a motivated postdoctoral candidate with strong computational and analytical skills and an interest in developing and applying data mining and analytics for business applications. The candidate will have to manage and elaborate a research project in cooperation with two academic research partners (Artificial Intelligence research group at Vrije Universiteit Brussel and Cryptography research group at Université Catholique de Louvain, Belgium) as well as a consortium of industrial partners. The project concerns the development of a new authentication mechanism that makes use of data mining, reinforcement learning, and advanced cryptographic techniques. The role of the BUTO research group in this project and the work packages to be elaborated by the candidate focus on incorporating business aspects (e.g., costs and benefits) related to practical authentication and fraud detection applications (e.g. financial transaction verification) within an authentication mechanism, by developing profit-driven data mining technologies that are compatible with the components developed by the partner research groups. The project aims at delivering a proof-of-concept by elaborating and applying the newly developed technology in two specific case studies in collaboration with industrial partners. Project funding is available for three years, with plenty of potential for follow-up projects (either with an industrial or academic focus). The candidate should hold a Ph.D., preferably in the field of data mining or analytics. Also candidates with a Ph.D. and expertise in fields such as operational research, simulation, modeling, etc. and with a strong interest in developing a profound expertise in data mining (analytics, big data, data science) are encouraged to apply. Additionally, some affinity and interest in the business side of practical data mining applications is required. ***Teaching*** The candidate may be appointed teaching responsibilities in order to develop a strong and complete academic cv. For more information on the project or any questions concerning the content of the job opening: contact Prof. dr. Wouter Verbeke: <u>wouter.verbeke@vub.ac.be</u> or +32 2 629 20 53

III.   Job profile

Requirements (academic qualifications, academic merits, expertise, knowledge, skills)

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- The candidate holds a Ph.D.
- Strong computational and analytical skills
- Good communicator and excellent knowledge of English
- Strong research interest
- Result driven and punctual
- Proven writing skills

Additional information

N/A

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As an employee of the Vrije Universiteit Brussel your days will be spent in a dynamic, diverse and multilingual environment. Both our campuses are set within green oases on the outskirts of the centre of the capital of Flanders, Belgium and Europe. This centre, with all its opportunities, is within your reach by public transport in under half an hour.

Depending on your experience and academic merits you will receive a salary on one of the pay scales laid down by the government. Hospitalisation cover and free use of public transport for travel to and from work are standard conditions of employment. If you would rather cycle to work, compensation is also available for that. Both campuses have extensive sporting facilities which are at your disposal and a nursery is within walking distance.

More information is available at www.vub.ac.be under the heading 'future employees'.

Additional information	
Planned starting date	01/04/2015
Length of contract	3 years (3 times 1 year)
Deadline for application	15/03/2015
Contact person	Prof. dr. Wouter Verbeke
Contact telephone	+32 2 629 20 53
Contact e-mail	Wouter.Verbeke@vub.ac.be

Applications can only be submitted online (via the website of the Vrije Universiteit Brussel)

All applications must at least include the following attachments:
- A brief CV
- Comprehensive details of academic portfolio
- Teaching and research perception, mentioning the candidate's five most important publications (for post-doctoral positions)
- A concise statement of the reason for applying including explanation about the development of future research