GHENT UNIVERSITY
GLOBAL CAMPUS

Research and Teaching Assistant (PhD candidate) in Biotech Data Science at Ghent University Global Campus, Korea

Ghent University Global Campus

Ghent University is a pluralistic university open to all, regardless of ideological, political, cultural, or social background. Our credo is "Dare to Think." As a top-100 university with more than 49,000 students and 15,000 staff members, we are one of the largest universities in the Dutch language area, located in Flanders, Belgium. Our 11 faculties offer more than 200 courses and conduct in-depth research within a wide range of scientific domains. Several of our research groups, centers, and institutes are renowned worldwide in disciplines such as biotechnology, aquaculture, microelectronics, and history. Over the past 200 years, our university has seen many eminent scientists, ministers, and even Nobel Prize winners among its staff and alumni.

Ghent University Global Campus (GUGC) is an extended campus of Ghent University in Songdo, South Korea, offering Bachelor of Science programs in Molecular Biotechnology, Environmental Technology, and Food Technology. The main research areas at GUGC are plant biotechnology, biomedical technology, biotech data science, food technology, and environmental technology.

Please visit the homepage of Ghent University (http://www.ugent.be/en) and Ghent University Global Campus (http://ghent.ac.kr/ | http://www.ugent.be/globalcampus/en) to learn more about our organizations.

Center for Biosystems and Biotech Data Science (KR01)

At GUGC, the mission of the Center for Biosystems and Biotech Data Science is to pursue the development of new mathematical and computational approaches for complexity reduction of biosystems and for extracting knowledge from vast sets of biotech data. A core technology leveraged by researchers at the center is deep machine learning, targeting the development of innovative concepts, methodologies, and tools in both the area of molecular biology and the field of computer vision. Furthermore, the Center for Biosystems and Biotech Data Science, which has a headcount of three professors and ten PhD Candidates, is responsible for organizing nine courses at GUGC (for a total of 65 ECTS), ranging from Informatics to Bioinformatics and Probability & Statistics.

Job Summary

GHENT UNIVERSITY
GLOBAL CAMPUS

Full-Time Research and Teaching Assistant (PhD candidate) – Ghent University Global Campus
Department: Department of Environmental Technology, Food Technology, and Molecular Biotechnology (KRO1)
Degree: Master's degree in one of the following disciplines: computer science/engineering, mathematics, informatics, electrical engineering, biomedical engineering, or a related field
Contract (renewal conditional on a positive evaluation): 1 + 1 + 2 + 2 years, for a total of maximum 6 years
Occupancy rate: 100%
Vacancy type: Research and Teaching Assistant (PhD Candidate, AAP)
Last application date: 1 May 2024 (Applicants are encouraged to apply immediately as the position will be filled upon finding the right candidate)
Starting date: 26 August 2024
Scientific supervisors: Prof. Joris Vankerschaver

Job Position

Ghent University Global Campus, South Korea, has a vacancy for a Research and Teaching Assistant position (PhD candidate) in the area of biotech data science, starting from 26 August 2024. This is a 1-year full-time position that is renewable three times based on favourable evaluation, for a maximum period of 6 years.

The candidate will work under the supervision of Prof. Joris Vankerschaver at the Center of Biosystems and Biotech Data Science, together with another doctoral advisor. In addition, the candidate will be able to spend time at the home campus in Ghent during their PhD studies.

For non-Korean applicants, free accommodation on campus and a yearly travel budget are foreseen. Ghent University Global Campus is an equal opportunities employer.

As a teaching assistant, the PhD candidate is expected to spend up to 50% of his/her time on teaching activities for undergraduate mathematics courses (calculus, analytical geometry, linear algebra) and for the courses Probability and Statistics and Introduction to Statistical Modeling. These activities include supervision of exercise/tutorial sessions, preparing and grading tests/exams and the supervision of bachelor projects.

The PhD Candidate is expected to perform research on the topic of biological sequence analysis, using methods from deep learning, machine learning, and statistical analysis. Specific application areas to work will be determined in collaboration with the doctoral advisor, but can extend to include genomic data analysis, data management, and data handling (see Google Scholar).

The candidate is expected to complete a doctoral research proposal of about 10 pages within the first six months of their appointment, containing a literature review, a set of research objectives, a work

plan (work packages and a Gantt chart), and a publication plan. This doctoral research proposal is to be approved by the GUGC Campus Council as a necessary condition for the first contract extension.

More information about pursuing a doctoral degree at Ghent University can be found at the following URL: https://www.ugent.be/en/research/doctoralresearch.

Candidate Profile

- By August 2023 you hold a Master's degree in one of the following disciplines: computer science/engineering, informatics, electrical engineering, applied mathematics, or biomedical engineering. Related disciplines may be considered as well (but need to be motivated).
- You have an excellent academic track record, an excellent command of English, and good academic writing and presentation skills.
- You are highly motivated to conduct applied research at the intersection of machine learning and statistical analysis on the one hand, and biology/biotechnology on the other.
- You have a good command of, and strong interest in, scientific computing and machine learning. In particular, you have good programming skills in a language such as Python or R. Experience with a deep learning framework (e.g., PyTorch, TensorFlow, Keras) is a plus.
- Awareness of current trends in (computational) biology, molecular biology, and/or genomics is a plus.
- You show a strong interest in tutoring students and supervising exercise classes, for small and large groups of students, covering topics in mathematics and statistics.
- You are comfortable with working in an international and multi-cultural environment that is dynamic in nature (Ghent University Global Campus counts more than 20 nationalities among its academic staff).
- If need be, you have the willingness to work flexible hours and to participate occasionally in events outside of the regular working hours.

Application Documents

- Motivation letter
- Full resume (CV), including the contact details of at least two references
- Copy of the Bachelor's and Master's degrees
- Transcripts (overview of study results)
- A link to your Master's thesis

GHENT UNIVERSITY
GLOBAL CAMPUS

The application documents must be merged into a single PDF file and be sent via email to Prof. Joris Vankerschaver (joris.vankerschaver@ghent.ac.kr) (subject line: Full-time AAP Position in Biotech Data Science). The candidate will receive an email confirming receipt of the application.

Application Process and Interview

- Interviews will take place in stages from the first available time.
- Applicants are encouraged to apply in a timely fashion as the position will be filled upon finding the right candidate.

We reserve the right to hold applications on file for potential future job openings. For inquiries, please contact us via email.

Selection Process

- CV screening and shortlisting -> Interview and technical test -> Internal committee -> Approval -> Acceptance notice to the candidate selected.

Compensation & Benefits for the Selected Candidate

- Basic terms of the contract: 1-year contract (renewable 3 times, after positive evaluation, for a total period of maximum 6 years).
- Salary: Starts from an Annual Base Salary of 27,375,000 KRW (Monthly Salary of 2,281,250 KRW, Gross).
- Bonuses: Two additional bonuses in June (92% of monthly salary) and December (100% of monthly salary).
- Housing unit or housing allowance: A single dormitory unit operated by Incheon Global Campus (IGC) will be provided for non-Korean candidates. If the selected candidate has the Korean nationality, or if the selected candidate is a permanent resident in Korea, then a housing unit will not be provided. Instead, a monthly housing allowance of 725,000 KRW will be provided.
- Travel: A non-Korean candidate will be provided, on a yearly basis, with two roundtrip tickets to their hometown (with a cost of up to 4,000,000 KRW).

- Severance: Severance shall be paid when the contract ends and if the candidate worked for more than one year.
- Private health insurance: Marsh private health insurance is provided, which includes basic medical reimbursements.
- Extensive annual paid leave and holidays:
  -The selected candidate shall have 35 days of paid annual leave per year.
  -Additional holidays: from Christmas (Dec 25) to New Year (Jan 1).

GHENT UNIVERSITY
GLOBAL CAMPUS