



北里大学 未来工学部

Kitasato University School of Frontier Engineering

Assistant Professor / Junior Associate Professor in Data Science

The Department of Data Science, situated within the School of Frontier Engineering, Kitasato University, Japan, invites applications for the position of Assistant Professor / Junior Associate Professor in Data Science (continuing upon review every five years). We welcome applicants whose research interests reside at the nexus of Data Science and other science disciplines. We specifically aim to recruit an individual of expertise and unwavering commitment to the pursuit of data analysis and statistical modelling research. This appointment will augment and complement the expertise of current members of the Data Modelling Group, fostering robust collaborations with external researchers in the fields of biological, medical and health sciences. The appointee will assume a pivotal role in conducting high-calibre research and delivering cutting-edge Data Science education in the Department.

The Department of Data Science and our home, the School of Frontier Engineering, were newly established divisions at Kitasato University in April 2023, as part of the University's initiative to proactively address emerging challenges in our future society, advancing our scientific knowledge in the fast-growing data era. In April 2024, we moved into our brand-new five-storey department building, which is the home for undergraduate and master's students, as well as state-of-the-art in-house high-performance computing facilities, at the Sagamihara Campus. Our staff members are recent appointees who have been actively involved in shaping the Department's strategic framework and tailoring the Data Science curriculum to ensure the highest standards since its early conceptualisation. We anticipate the recruitment of additional new staff members in the ensuing years. Our Department fosters a thriving and vibrant milieu, offering an intellectually stimulating and friendly research/teaching environment, active interdisciplinary linkages across the University and a welcoming community of passionate staff and enthusiastic students.

Application documents:

1. Cover letter (please indicate which position you are applying for)
2. Up-to-date CV
3. The list of publications
4. Research statement (up to A4 two pages)
5. Teaching Philosophy (up to A4 two pages)
6. Up to three key publications (pdf)
7. The list of contacts of two references (whom we can contact for short-listed applicants)

The application must be in Japanese or English.

Submission:

All the documents should be combined into a single pdf and named as “surname_firstname.pdf”. Please submit your pdf to

<https://kitasato.app.box.com/f/1182da26af674a6a80379bf50c90481e>

Upon successful submission, you will not receive any confirmation email but will be directed to a submission success page on your browser. You can update your file anytime until the closing time by simply resubmitting the file.

Closing date:

23:59 Japan Standard Time (UTC +09:00) on 29th September 2024

Interview:

It will be held online during the period of 7-11 October 2024 (We will contact short-listed applicants to arrange a date for an interview).

Informal inquiries:

Professor Hideyasu SHIMADZU; fr-dm@kitasato-u.ac.jp

About the Kitasato Institute

The Kitasato Institute, established in 1914, traces its roots back to the former Institute for Study of Infectious Diseases, founded in 1892, as Japan's first private medical research facility renowned for its biomedical research and education. The Institute is named after its founder, Dr Shibasaburo Kitasato, a Japanese physician and bacteriologist, who made groundbreaking contributions to the field of infectious disease control and preventive medicine, discovering the infectious agent of tetanus and bubonic plague, as well as leading the field of serotherapy, which has benefited many worldwide today. Dr Kitasato's portrait has now been featured on Japan's new thousand yen banknotes since July 2024.

For over a century, the Institute has been at the forefront of scientific discoveries and medical advancements. With a multidisciplinary approach, the Kitasato Institute excels in various areas, uniting experts from diverse fields in life sciences. This collaborative environment fosters a vibrant exchange of ideas and enables the Institute to address complex medical challenges from comprehensive perspectives. Throughout its history, the Institute has made significant contributions to public health and human well-being, playing a crucial role in developing vaccines and groundbreaking discoveries for infectious diseases.

In addition to its research endeavours, the Institute places great emphasis on education and training. It offers a range of educational programmes to nurture the next generation of scientists and healthcare professionals and actively collaborates with academic institutions, government agencies, and industry partners, both nationally and internationally. With its pioneering spirit, state-of-the-art facilities and a talented team of researchers and educators, the Kitasato Institute remains dedicated to advancing scientific knowledge and practice for the benefit of society.

<https://www.kitasato-u.ac.jp/en/about-kitasato/institute.html>

About Kitasato University

Kitasato University was founded in 1962, commemorating the Kitasato Institute's 50th anniversary. Recognised for its excellence in life science research and education, the University offers diverse academic disciplines and programmes that foster students with an unwavering determination to pursue successful careers in their chosen professions. The University comprises three affiliated hospitals and nine dedicated schools: Pharmacy, Veterinary Medicine, Medicine, Marine Biosciences, Nursing, Science, Allied Health Sciences, Frontier Engineering and Health Sciences, where around 8,500 students (postgraduates and undergraduates) currently study. All schools place a strong emphasis on practical and hands-on training in their curriculums, through which the University prides the student-centred approach that values collaboration, critical thinking and innovation.

Kitasato University actively engages in cutting-edge research across various fields of life sciences, providing a dynamic platform for interdisciplinary collaborations and scientific discoveries. One notable figure in the University is Professor Satoshi Omura, who was awarded the Nobel Prize in Physiology or Medicine in 2015 for his groundbreaking research on discoveries concerning a novel therapy against infections caused by roundworm parasites. With a rich history and continuous dedication to academic excellence, coupled with the vibrant and dynamic learning environment, Kitasato University thrives on shaping the future of life science research and education, equipping students with the knowledge and skills necessary to make significant contributions to the future society.

<https://www.kitasato-u.ac.jp/en/about-kitasato/about.html>

About the Department of Data Science, the School of Frontier Engineering

The School of Frontier Engineering was established in April 2023 as the eighth school of Kitasato University. Within the School, the Department of Data Science stands as the sole department. This new development is part of the University's visionary initiative to confront the unprecedented challenges in the fast-growing data era, forging all the expertise in the University to create a resilient future society. This transformative endeavour coincides with celebrating the Kitasato Institute's 110th and Kitasato University's 60th anniversary. We have been housed in a brand-new five-storey department building with state-of-the-art in-house high-performance computing facilities since April 2024.

The Department consists of eight divisions (laboratories) leading key research areas:

1. Artificial Intelligence
2. Bioimage Informatics
3. Bioinformatics for Bioengineering
4. Data Modelling (the present vacancy)
5. Life Sciences Information Design
6. Medical Informatics
7. Soft Matter Informatics
8. Trans-Omics

Around 120 students per year are admitted to our BEg programme. We also launched a graduate school for a research master programme (MEng) in April 2024. We now plan to start a PhD programme in a few years.

Data Modelling Group URL: <https://kitasato.datascience.jp/dm/>

JOB DESCRIPTION

Job Title:	Assistant Professor in Data Science (Jyokyo) or Junior Associate Professor in Data Science (Koushi) (continuing upon review every five years)
Affiliation:	Data Modelling Laboratory, Department of Data Science, School of Frontier Engineering
Salary:	Salary depends on qualification, experience and seniority based on the University's spin points. Model cases: 6,161,100 JPY per annum (Assistant Professor, 30 years old); 7,438,200 JPY per annum (Junior Associate Professor, 40 years old)
Responsible to:	Dean of School and Data Modelling Group Leader
Campus location:	Sagamihara Campus (Kanagawa, Japan)
Working Hours:	As reasonably necessary, usually not less than 38 hours per week
Start Date:	1 st April 2025 or as soon as thereafter

Key Responsibilities:

Research

- Conduct original research of international quality in areas of Data Science and relevant fields, which would expand and complement existing activities within the Department of Data Science.
- Attract external funding to support the research.
- Publish research outcomes in internationally recognised peer-reviewed journals.
- Present research outcomes at major scientific and professional conferences.
- Collaborate in research initiatives with colleagues in the Department and more widely across the University.
- Collaborate in research initiatives with Japanese and overseas institutions and other relevant bodies.
- Represent Kitasato University in national and international research communities.

Teaching

- Contribute to teaching modules.
- Develop new teaching activities, including projects and modules.
- Supervise BEng and postgraduate students (*i.e.* research masters and PhDs)

Administration

- Undertake academic, administrative and admission duties within the Department and the University, as the Dean of the School and the Group Leader may require.
- Act as personal tutor to undergraduate and postgraduate students.
- Serve as an examiner at undergraduate, research master and PhD levels.
- Serve on appropriate Departmental and University committees.

Other Duties

- Undertake outreach activities for the Department and the University, as the Dean of the School and the Group Leader may require.
- Observe and comply with all University policies and regulations, including the key policies and procedures.

Please note that the job descriptions cannot be exhaustive, and the postholder may be required to undertake other duties broadly in line with the above key responsibilities.

Knowledge, Skills and Experience Needed for the Position:

Qualifications

Essential

- A PhD or an equivalent degree in an appropriate subject (if your degree is expected, please state when it is expected by in the application).

Experience

Essential

- Ability to teach in Japanese or English
- Ability to teach some of the following modules: 1) Fundamentals of Probability; 2) Data Analysis and Mathematical Principles I & II; 3) Data Modelling; 4) Likelihood Principles for Data Modelling; 5) History of Data Science, and 6) some modules for the postgraduate programme.
- Ability to plan and implement an independent research programme.
- Experience in data analysis and modelling using R.

Desirable

- Experience in leading or significantly contributing to successful collaboration in research.
- Experience in university teaching at the undergraduate and/or postgraduate level.
- Previous experience of, or demonstrable interest in, curriculum development, the design and development of courses and innovative teaching methods.

Knowledge, Skills and Competencies

Essential

- A research background in Data Science and related disciplines.
- Willingness to understand current teaching and learning methods in Japanese higher education.
- Excellent written and oral communication skills and interpersonal skills in a range of contexts (*e.g.* presentations, student support, research collaboration).
- Demonstrated ability to conduct, publish and disseminate high-quality research in peer-reviewed journals.
- Demonstrated ability, or clear potential, to secure research funding.
- Demonstrated skill in delivering engaging and effective teaching.

Personal Attributes

Essential

- Self-motivated, able to work both independently and collaboratively, able to initiate and organise activities and projects and to manage and develop self and others.
- Able to plan, implement, and articulate to others, coherent and innovative programmes of teaching and research, including the vision and skills to make a sustained contribution over a period of years.
- Committed to working in a supportive, collaborative, open environment and supporting others (students, research staff and colleagues).