

## **Final Ad for the Assistant Professor in Health Data Analytics, Systems Design Engineering**

The Department of Systems Design Engineering (SYDE) in the Faculty of Engineering at the University of Waterloo invites applications from highly qualified individuals for a tenure track position at the rank of **Assistant Professor in Health Data Analytics** with an anticipated start date of September 1, 2023. In the case of an exceptional candidate, an appointment at the rank of Associate Professor will be considered.

The applicant must have a PhD in engineering or science and may have earned some of their degrees in different disciplines. The successful candidate will have experience working with health data related to biological health data (such as genomics, transcriptomics, etc.), public health data, digital health data, or electronic health data records. Research should include quantitative analysis and technologies such as artificial intelligence, statistical modeling, real-time analytics, big data mining, or similar; with a focus on complex and/or transdisciplinary systems. The successful candidate will have demonstrated access to large datasets or significant experience in gaining access to datasets to conduct their research.

We seek applicants with demonstrated experience in practising and/or teaching ethics, which may include ethical approaches to design, development of research ethics policy, or engagement in research with marginalized populations.

The successful candidate should demonstrate evidence of interdisciplinary research and effective collaboration across disciplines. The successful candidate is expected to collaborate with other faculty in SYDE, with other colleagues within the University of Waterloo, and to establish strong external research collaborations.

The applicant must have excellent communication skills and a dedication to both teaching and research. Duties will include teaching in the Biomedical Engineering and Systems Design Engineering programs, covering core courses as well as electives. It is anticipated that one of the teaching tasks of the successful candidate will be to teach an undergraduate Biomedical Engineering course on ethics. Duties will also include advising graduate and undergraduate students as well as administrative services at the University and in the international research community.

The successful applicant is required to have an engineering license for practice (full) or teaching (limited) in Canada or to apply for a Canadian engineering license within the first year of joining the University. Due to program accreditation requirements, all new faculty members are normally expected to obtain the license before the end of the first probationary term. Re-appointment is conditional upon satisfying this requirement.

Salary in the range of \$110,000 to \$150,000 will be commensurate with experience. Applications received by **April 15, 2023** will be given full consideration. However, applications will continue to be reviewed until the position is filled.

Systems Design Engineering encompasses the application of science to solve problems using human-focused design and systems-based approaches. SYDE, established in 1968, has 1000

undergraduate students, research-based Master's and PhD programs, and 40 faculty members. SYDE is proud of the many successful entrepreneurs who have graduated from the department, where they were exposed to a design and systems-focused curriculum and inspired by faculty members who conduct transdisciplinary research in socio-environmental systems; biomedical engineering; human factors; and intelligent, mechatronic, and physical systems. SYDE is the lead department in the Faculty's interdisciplinary Biomedical Engineering program and a strong partner in the Mechatronics and Nanotechnology programs. SYDE also houses the Centre for Society, Technology and Values.

The University of Waterloo's Faculty of Engineering is Canada's largest engineering school, ranking among the top 50 engineering schools worldwide, and bringing in more than \$96 million in research funding per year. The University of Waterloo has 42,000 students and 220,000 alumni in 151 countries. It is home to 74 Canada Research Chairs and is well-known for its 100% creator-owned IP policy. Operating world-renowned cooperative education programs, Waterloo partners with more than 7,000 employers worldwide. Faculty have the opportunity to work across disciplines and collaborate with a diverse community of scholars and students.

The University of Waterloo covers 1,000 acres in the heart of the City of Waterloo. The Region of Waterloo, with a population of 600,000, is an hour west of Toronto, with its global-hub airport.

**Three reasons to apply:** <https://uwaterloo.ca/faculty-association/why-waterloo>.

The University of Waterloo acknowledges that much of our work takes place on the traditional territory of the Neutral, Anishinaabeg and Haudenosaunee peoples. Our main campus is situated on the Haldimand Tract, the land granted to the Six Nations that includes six miles on each side of the Grand River. Our active work toward reconciliation takes place across our campuses through research, learning, teaching, and community building, and is centralized within our Indigenous Initiatives Office (<https://uwaterloo.ca/human-rights-equity-inclusion/indigenousinitiatives>).

The University values the diverse and intersectional identities of its students, faculty, and staff.

The University regards equity and diversity as an integral part of academic excellence and is committed to accessibility for all employees. The University of Waterloo seeks applicants who embrace our values of equity, anti-racism and inclusion. As such, we encourage applications from candidates who have been historically disadvantaged and marginalized, including applicants who identify as Indigenous peoples (e.g., First Nations, Métis, Inuit/Inuk), Black, racialized, people with disabilities, women and/or 2SLGBTQ+.

All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority.

Interested candidates should submit the following by email in a single attached pdf document:

1. cover letter (which should indicate if the applicant is a Canadian citizen or permanent resident);
2. current curriculum vitae;
3. statement of scholarship that includes accomplishments and goals in research and practice, highlighting important outcomes or publications for committee review;

4. statement of teaching philosophy and approaches;
5. diversity impact statement that addresses how the candidate's research/teaching program will advance the university's goals around equity, diversity and inclusion (as an example, consider the following [NSERC guide](#)); and
6. names and contact information for at least three references, who will not be contacted without prior notification to the candidate.

The link to apply is here: <https://uwaterloo.ca/engineering/faculty-opening-health-data-analytics>

The cover letter is to be addressed to:

Prof. Maud Gorbet

Director, Biomedical Engineering (BME)

Chair of the Search Committee, Department of Systems Design Engineering, University of Waterloo

If you have any questions regarding the hiring process, please contact [mgorbet@uwaterloo.ca](mailto:mgorbet@uwaterloo.ca)