

Emma Kondrup

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EDUCATION

MCGILL UNIVERSITY

Montreal, QC

BS.c Honours Computer Science, Current CGPA : 3.73/4.0

Relevant Coursework: Machine Learning (COMP 551), Modern Computer Games (COMP 521), Network Science (COMP 511).

EXPERIENCE

CENTRE FOR ADVANCED STUDIES IN BIOSCIENCE INNOVATION LAW (CEBIL),

FACULTY OF LAW,

UNIVERSITY OF COPENHAGEN

Copenhagen, Denmark

July 2024 – Present

Research Assistant

- Conducted a comprehensive legal analysis of the GDPR and national Danish legislation on genetic data protection and related privacy aspects for an international collaborative project with the GDO.
- Developed illustrations for a deliverable on unwanted BCI implantations, and for a book chapter on the EU AI Act.
- Coordinated communication within the team and public outreach, including for the new Inter-CeBIL Master Class.

CENTRE FOR GENOMICS AND POLICY (CGP),

VICTOR PHILLIP DAHDALEH INSTITUTE OF GENOMIC MEDICINE,

MCGILL UNIVERSITY

Montreal, QC

December 2022 – August 2024

Research Assistant

- Conducted a risk analysis and designed guidelines for the safe use of the GA4GH's Beacon API, a data discovery tool that allows researchers to search genomic and biomedical data worldwide.
- Conducted a review of life insurance applications forms to analyse the effect of Canada's Genetic Non-Discrimination Act.
- Collaborated on multiple occasions as data analyst, including for a literature review on ethical data use in genomics research, a public opinion governmental survey on telemedicine in Quebec, and the GNDA analysis.
- Helped find, write and submit multiple successful grants, including a \$31,000 SSHRC Connection Grant, and prepare and submit papers (in addition to my own research) to high-impact scientific journals, including [Moreno et al., 2023](#).

GENETIC DISCRIMINATION OBSERVATORY (GDO)

Montreal, QC

December 2022 – August 2024

Research Assistant

- Organized a 2-day international conference in Panamá City for the GDO's 4th Annual Meeting with leading experts.
 - Presented the results of our 2023 "Still using genetic data?" study.
- Built a new website for the Observatory, increasing visits and accessibility to resources, as well as re-developing some said resources, including an interactive international map with comprehensive legal data on genetic data protection.
- Coordinated communication within the team, as well as within the international group of GDO members, and public outreach, designing informational material and increasing the organization's online presence.

SOFTWARE ENGINEERING & FORMAL METHODS RESEARCH GROUP,

DEPARTMENT OF COMPUTER SCIENCE (DIKU),

UNIVERSITY OF COPENHAGEN

Copenhagen, Denmark

May - June 2023

Research Intern

- Assessed the TraceDeep project, aiming at implementing individualized care in psychiatry to reduce complications for patients tapering off antidepressants, based on the novel Z-Inspection process under the supervision of Prof. Boris Döder.

CENTRE FOR RESEARCH IN COGNITION AND NEUROSCIENCES,

UNIVERSITÉ LIBRE DE BRUXELLES (ULB)

Brussels, Belgium

February 2020

Research Intern

- Assisted in cognitive research projects under Prof. Fabienne Chetail, focusing on the process of language learning.

PUBLICATIONS

“THE KEY FEATURES OF A GENETIC NONDISCRIMINATION POLICY: A DELPHI CONSENSUS STATEMENT”

Collaborative research project guiding genetic non-discrimination policymaking.

[JAMA Network Open](#)
2024

“THE ETHICAL ISSUES ASSOCIATED WITH THE USE OF GENETIC ANCESTRY IN GENOMICS RESEARCH: A MIXED-METHODS SYSTEMATIC LITERATURE REVIEW”

Mixed-method review synthesizing the ethical landscape in genomics research involving Genetic Ancestry.

Published by the Canadian Government’s Social Sciences & Humanities Research Council ([SSHRC](#)), and as a [thesis](#) by the CGP.

[SSHRC](#)
2024

PUBLIC OPINION SURVEY ON TELEMEDICINE CARE DELIVERY IN QUEBEC

For the Ministry of Health and Social Services of Quebec

Research project in collaboration with the *Québec Ministère de la Santé et des Services Sociaux, MSSS*, the *Réseau Québécois de la Télésanté, CdP RQT*, and *McGill University Health Centre, MUHC*, on improving telehealth care.

2023

“STILL USING GENETIC DATA? A COMPARATIVE ASSESSMENT ON CANADIAN LIFE INSURANCE APPLICATION FORMS POST-GNDA”

Research paper on the impact of the GNDA on insurers’ practices and the potential for Genetic Discrimination.

[Facets](#)
2023

LEADERSHIP & ACTIVITIES

MCGILL AI SOCIETY

Technical Project Manager

Montreal, QC
May 2024 - Present

- Supervised 20+ students of the MAIS 202 Introductory ML bootcamp through their semester-long projects.
- At the AI Society’s 2025 Hackathon, led a workshop on Python libraries for Machine Learning, as well as being a technical mentor throughout the weekend, and a project judge at its end.
- Develop, share, grade, and improve educational material including assignments and lectures.

GLOBAL ALLIANCE FOR GENOMICS AND HEALTH (GA4GH)

Member of the Genetic Discrimination REWS

February 2024 – Present

Member of the AI and ML REWS

February 2024 – Present

- Regular research meetings in a collaborative team with interdisciplinary experts, with projects on specific use cases of novel AI-powered tools for genomics & health.

MCGILL BIOMECHANICS CLUB

Research Member

Montreal, QC
2022 - 2023

- Researched existing prototypes for hand tremor-compensating gloves in Parkinson’s disease care.
- Designed a 3D prototype of a tremor glove in Blender.

MEDIA

USBK & RICA: Interviewed and quoted in the 43th edition on Genetic Discrimination.

[Online](#) & paper distribution, 2024

PHYS.ORG: Press release on the 2023 “Still using Genetic Data?” article.

[Online](#), 2023

MCGILL NEWSROOM: Press release on the 2023 “Still using Genetic Data?” article.

[Online](#), 2023

TALKS AND TEACHING

MCGILL UNIVERSITY

Workshop Leader

« Python Libraries for Machine Learning » (McGill AI Society's 2025 Hackathon).

Montreal, QC

February 2025

UNIVERSITÉ DE LAVAL

Guest Lecturer

« Enjeux éthiques, sociaux et légaux en médecine génétique de précision » (MMO-7031, bioethics microcapsule).

Montreal, QC

Fall 2024

GENETIC DISCRIMINATION OBSERVATORY'S 4TH ANNUAL MEETING

Panamá City, Panamá

Speaker

December 2023

« The song remains the same? A comparative assessment of Canadian life insurance application forms post-GNDA »

PROJECTS

OCAML EDUCATIONAL PROOF ASSISTANT

React-based induction proof autograder

Ongoing

Under the supervision of Prof. Jacob Errington:

- Developed a React-based webapp that integrates an OCaml-like language our team built to parse and evaluate inductive programming proofs.
- Integrated Js_of_OCaml to convert input code and evaluate it in OCaml, Monaco for an in-browser code editor with persistence and a Supabase back-end.

ASL TRANSLATOR

Multi-layer Perceptron & Convolutional Neural Network

2024

- Implemented a multi-layer perceptron in Python to explore mathematical & theoretical background, attaining ~ 70% accuracy with Softmax output activation function for multi-class prediction.
- Performance was then compared with a CNN developed using PyTorch (~ 90% accuracy).

FROGGER

Hierarchical Task Network agent game inspired by *Frogger* (Konami, 1981)

2024

- Implemented an HTN Frog agent with semi-intelligent task planning, including activities such as digesting a fly agent and traversing the road to safety.
- Coded the environment with randomized spawning and the game in Unity.

SKILLS

Technical: Python, Java, C, C++, C#, JavaScript, OCaml, MIPS Assembly, React.

Language: English, French, Danish, Spanish (all professional fluency or above)