Emma Kondrup

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EDUCATION

MCGILL UNIVERSITY   Montreal, Canada

BS.c Honours Computer Science, Current CGPA : 3.7/4.0
Relevant Coursework: Machine Learning, Modern Computer Games, Network Science.

"HEALTH AND LIFE SCIENCE LAW", Graduate course at the University of Copenhagen   Copenhagen, Denmark

Helped organize and followed the course.

"AI SAFETY", Graduate course at MILA – Quebec AI Institute   Montreal, Canada

Audited the course taught by David Krueger.

EXPERIENCE

MILA – QUEBEC AI INSTITUTE   Montreal, Canada
Student Researcher at the Complex Data Lab *under Prof. Reihaneh Rabbany*   May 2025 – Present

CENTRE FOR ADVANCED STUDIES IN BIOSCIENCE INNOVATION LAW (CEBIL),
FACULTY OF LAW,
UNIVERSITY OF COPENHAGEN   Copenhagen, Denmark
Research Assistant in Biomedical & AI Law *under Prof. Timo Minssen*   July 2024 – Present

CENTRE FOR GENOMICS AND POLICY (CGP),
VICTOR PHILLIP DAHDALEH INSTITUTE OF GENOMIC MEDICINE,
MCGILL UNIVERSITY   Montreal, Canada
Research Assistant in Genomics, Technology & Health Law *under Prof. Yann Joly*   December 2022 – August 2024

GENETIC DISCRIMINATION OBSERVATORY (GDO)   Montreal, Canada
Research Assistant in Genetic Discrimination *under Prof. Yann Joly*   December 2022 – August 2024

SOFTWARE ENGINEERING & FORMAL METHODS RESEARCH GROUP,
DEPARTMENT OF COMPUTER SCIENCE (DIKU),
UNIVERSITY OF COPENHAGEN   Copenhagen, Denmark
Research Intern in Individualized Care and AI Ethics *under Prof. Boris Düdder*   May - June 2023

CENTRE FOR RESEARCH IN COGNITION AND NEUROSCIENCES,
UNIVERSITÉ LIBRE DE BRUXELLES (ULB)   Brussels, Belgium
Research Intern in Cognitive Language Learning *under Prof. Fabienne Chétail*   February 2020

TALKS

CONFERENCE OF MCGILL'S EPIC PROGRAMMING LANGUAGE SYSTEMS   Montreal, Canada
Honours Thesis Presentation   April 2025
« Instant-Curry: a Boundless Proof Auto-Grader for teaching Functional Programming Theory »

MCGILL UNIVERSITY   Montreal, Canada
  Workshop Leader   February 2025
  « Python Libraries for Machine Learning » (McGill AI Society's 2025 Hackathon).

UNIVERSITÉ DE LAVAL   Montreal, Canada
  Guest Lecturer   Fall 2024
  « Enjeux éthiques, sociaux et légaux en médecine génétique de précision » (MMO-7031, bioethics microcapsule).

GENETIC DISCRIMINATION OBSERVATORY'S 4ᵀᴴ ANNUAL MEETING   Panamá City, Panamá
  Organizer of international scientific conference and Speaker   December 2023
  « The song remains the same? A comparative assessment of Canadian life insurance application forms post-
  GNDA »

PUBLICATIONS

"INFORMED CONSENT, REDEFINED:
HOW AI AND BIG DATA ARE CHANGING THE RULES"   [Harvard's Bill of Health](#)
  Short piece on informed medical consent and biomedical ethics in the AI era.   2025

"THE KEY FEATURES OF A GENETIC NONDISCRIMINATION POLICY:
A DELPHI CONSENSUS STATEMENT"   [JAMA Network Open](#)
  Collaborative research project guiding genetic non-discrimination policymaking.   2024

"THE ETHICAL ISSUES ASSOCIATED WITH THE USE OF GENETIC ANCESTRY
IN GENOMICS RESEARCH: A MIXED-METHODS SYSTEMATIC LITERATURE REVIEW"   [SSHRC](#)
  Mixed-method review synthesizing the ethical landscape in genomics research involving Genetic Ancestry.   2024
  Published by the Canadian Government's Social Sciences & Humanities Research Council ([SSHRC](#)),
        and as a [thesis](#) by the CGP.

PUBLIC OPINION SURVEY ON TELEMEDICINE CARE DELIVERY IN QUEBEC
  For the Ministry of Health and Social Services of Quebec   2023
  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.

"STILL USING GENETIC DATA? A COMPARATIVE ASSESSMENT ON
CANADIAN LIFE INSURANCE APPLICATION FORMS POST-GNDA"   [Facets](#)
  Research paper on the impact of the GNDA on insurers' practices and the potential for Genetic Discrimination.   2023

EXTRACURRICULARS, GROUPS & CERTIFICATIONS

IOP PEER REVIEW EXCELLENCE COURSE
  Training Graduate (see [certificate](#))   2025

MCGILL AI SOCIETY   Montreal, Canada
  Technical Project Manager & Mentor, Technical Judge, and at our Hackathons   May 2024 - Present

GLOBAL ALLIANCE FOR GENOMICS AND HEALTH (GA4GH)
 Member of the AI and ML Research Workstream (REWS)   February 2024 – Present
 Member of the Genetic Discrimination REWS   February 2024 – Present

MCGILL BIOMECHANICS CLUB   Montreal, Canada
 Research Member   2022 - 2023

MEDIA

USBEK & 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

PROJECTS
* = report & code available upon request – others available on GitHub

A HYBRID SELF-SUPERVISED APPROACH
TO OPTIMIZING PAPER RECOMMENDATION SYSTEMS
 Graph-based Neural Network Optimization   * Winter 2025

INSTANT-CURRY:
AN OCAML EDUCATIONAL PROOF ASSISTANT
 React-based induction proof auto-grader, *under the supervision of Prof. Jacob Errington*   * Winter 2025

AMERICAN SIGN LANGUAGE TRANSLATOR
 Multi-layer Perceptron & Convolutional Neural Network   2024

FROGGER
 Hierarchical Task Network agent game inspired by *Frogger* (Konami, 1981)   2024

HACKATHONS
 CodeJam, *McGill University*   2023 & 2024
 HackHarvard, *Harvard University*   2023

SKILLS

Technical
- **Web development:** HTML, CSS, JavaScript (XML), React, Supabase, PostgreSQL, D3.js.
- **Game development:** Unity, **game design:** Blender (beginner), Adobe Creative Suite (advanced).
- **ML programming and other languages:** Python, Java, OCaml (and OCaml to JS Bytecode transpiling with Js_of_OCaml), MIPS Assembly, C(++/#).

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