NADINE EL-MUFTI

WORK EXPERIENCE

Centre of Excellence in Youth Mental Health (CEYMH)

Graduate Research Assistant May 2025 – Present

- Driving research on speech-based relapse prediction in schizophrenia as part of the MOTS+ project, collecting and integrating data from participants at three clinical research sites.
- Shaping the development of the Québec Speech Bank, contributing to a province-wide infrastructure for mental health diagnostics through structured data design and multimodal analysis.
- Streamlining workflows with REDCap, coding data pipelines, and co-refining scientific questions that bridge language, symptoms, and cognition.

Applied Perception Lab

Graduate Research Assistant

Montreal, Quebec Dec 2024 – Present

Montreal, Quebec

• Conducting research at the intersection of AI, ethics, and EDI, developing frameworks to address societal challenges and promote responsible healthcare technology.

Mila - Quebec Al Institute

Collaborating Researcher

Montreal, Quebec

Oct 2024 – Present

• Conducting novel research in Medical Machine Learning to facilitate early disease detection through speech analysis.

Concordia University

Teaching Assistant

Montreal, Quebec

Jan 2025 – April 2025

 Achieving consistent and fair grading for Concordia's Machine Learning course 'Comp 432' by marking labs, delivering prompt feedback, and addressing inquiries from 110 students.

Climate Change Al Summer Program

Participant

Montreal, Quebec Jun 2024 – Aug 2024

 Participated in an AI for Climate Change program leveraging Machine Learning as a key driver of innovation alongside policy to strengthen environmental strategies and combat climate change across different sectors.

Applied Perception Lab

NSERC USRA Research Assistant

Montreal, Quebec May 2022 – Aug 2022

 Co-authored a conference paper for Medical Image Computing and Computer Assisted Intervention (MICCAI) 2022's Ethical and Philosophical Issues in Medical Imaging (EPIMI) workshop, presenting a comprehensive User-Centered Design approach to identify and address Ventriculostomy surgeons' workflow challenges, to improve surgical efficiency.

SKILLS

HTML · CSS · JavaScript · React.js · SQL · Python (scikit-learn, TensorFlow, Keras, PyTorch) · Machine Learning (Supervised & Unsupervised & Reinforcement Learning) · Statistical Analysis & Data Visualization (Matplotlib, Seaborn) · Exploratory Data Analysis (EDA) · Data Preprocessing & Feature Engineering · Model Development & Evaluation · Flask · Streamlit · Microsoft Power BI · Tableau · Docker · Microsoft Office Suite · UX/UI Interaction Design · Graphic Design · Adobe Creative Suite · Tech Stewardship

LEADERSHIP & COMMUNITY ENGAGEMENT

Bourses d'Excellence for Engineering Scholarship Issued by the Quebec Ministry of Education

Member Concordia Council on Student Life Subcommittee Concordia University	Montreal, Quebec Jan 2025 – April 2025
Mentee GEMinAl Program Concordia University's Applied Al Institute	Montreal, Quebec Oct 2024 – April 2025
Ambassador School of Graduate Studies Concordia University	Montreal, Quebec Sep 2024 – Present
EDUCATION	
Master of Computer Science Computer Science Concordia University / Mila - Quebec Al Institute	Montreal, Quebec Jan 2025 – Present
Bachelor of Engineering Software Engineering GPA (3.67) With Distinction Concordia University	Montreal, Quebec Jan 2019 – May 2024
LICENSES & CERTIFICATIONS	
TRAIL Research Trustworthy and Responsible Al Learning Certificate Issued by Mila - Quebec Artificial Intelligence	Mar 2025
TCPS 2: CORE 2022 Certification Issued by the Government of Canada	Jan 2025
Tech Stewardship Certification Issued by the Tech Stewardship Network	Jul 2024
PUBLICATIONS	
<u>User-Centered Design for Surgical Innovations: A Ventriculostomy Case Stu</u> Lecture Notes in Computer Science — Volume 13755 · Dec 20, 2022	<u>udy</u>
HONORS & AWARDS	
NSERC CGS-M Award Issued by the Natural Sciences and Engineering Research Council of Canada	Apr 2024
NSERC Undergraduate Student Research Award (USRA) Issued by the Natural Sciences and Engineering Research Council of Canada	May 2022

Jun 2022