

Abdelrahman Zayed

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Education

Sep 2020-
Dec 2024

PHD IN COMPUTER SCIENCE.
MILA (QUEBEC AI INSTITUTE), MONTRÉAL, CANADA.

- Cumulative GPA : 4.0/4.0
- **Supervisor** : Professor Sarath Chandar
- **Research interests** : Natural language processing, fairness, and responsible AI.

May 2018-
April 2020

MASTER OF SCIENCE IN ELECTRICAL AND COMPUTER ENGINEERING.
CONCORDIA UNIVERSITY, MONTRÉAL, CANADA.

- Cumulative GPA : 4.2/4.2
- **Supervisor** : Professor Hassan Rivaz

July 2016

BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING.
CAIRO UNIVERSITY, GIZA, EGYPT.

- Summa Cum Laude
- Cumulative GPA : 3.92/4.0 (Top 3 %)

Experience

July 2024-
present

GRADUATE RESEARCH ASSISTANT, HUAWEI NOAH'S ARK LAB.
MONTRÉAL, CANADA.

- **Supervisor** : Mehdi Rezagholizadeh
- Working on hallucination in LLMs.

May 2021-
July 2022

GRADUATE RESEARCH ASSISTANT, MICROSOFT RESEARCH.
MONTRÉAL, CANADA.

- **Supervisor** : Samira Shabanian
- Proposed a novel gender bias mitigation method in text classification.

May 2020-
Aug 2020

GRADUATE RESEARCH ASSISTANT, MILA (QUEBEC AI INSTITUTE).
MONTRÉAL, CANADA.

- **Supervisor** : Professor Sarath Chandar
- Worked on the application of constraints to the output of neural networks.

May 2018-
April 2020

GRADUATE RESEARCH ASSISTANT, IMAGE PROCESSING AND CHARACTERIZATION OF TISSUE LABORATORY.
PERFORM CENTRE, MONTRÉAL, CANADA.

- **Supervisor** : Professor Hassan Rivaz
- Applied machine learning in ultrasound imaging for detecting cancer tumours.

May 2019-
Jan 2020

GRADUATE RESEARCH ASSISTANT, NEURAL ABC LABORATORY.
CONCORDIA UNIVERSITY, MONTRÉAL, CANADA.

- **Supervisor** : Professor Christopher J. Steele
- Developed a model of the structural connections of the human brain to predict the effects of brain lesions.

Oct 2016-
Dec 2016

GRADUATE RESEARCH ASSISTANT, CAIRO UNIVERSITY.
CAIRO, EGYPT.

- **Supervisor** : Professor Mohamed Khairy
- Worked on Optical Wireless Communications in 5G Networks.

Scholarships and Awards

MICROSOFT FUNDING FOR AMBITIOUS PROJECTS - RESPONSIBLE AI SCHOLARSHIP - FRQNT PH.D. SCHOLARSHIP - GRADUATE RESEARCH ASSISTANTSHIP FROM MILA - QBIN SCHOLARSHIP FOR MASTER'S STUDENTS - CAE SCHOLARSHIP IN ENGINEERING EXCELLENCE FROM CONCORDIA UNIVERSITY - GRADUATE RESEARCH ASSISTANTSHIP FROM CONCORDIA UNIVERSITY - MERIT SCHOLARSHIP FROM CONCORDIA UNIVERSITY - MEDAL OF DISTINCTION WITH HONOR IN UNDERGRADUATE STUDIES FROM CAIRO UNIVERSITY.

Teaching Assistant

ANALOG COMMUNICATIONS AT CAIRO UNIVERSITY (FALL 2016) - INTRODUCTION TO MACHINE LEARNING AT POLYTECHNIQUE MONTRÉAL (FALL 2020 AND FALL 2021).

Publications

1-**A. ZAYED**, GONCALO MORDIDO, IOANA BALDINI , SARATH CHANDAR “WHY DON’T PROMPT-BASED FAIRNESS METRICS CORRELATE?” - ACL MAIN 2024.

2-**A. ZAYED**, GONCALO MORDIDO, SAMIRA SHABANIAN, IOANA BALDINI , SARATH CHANDAR “FAIRNESS-AWARE STRUCTURED PRUNING IN TRANSFORMERS” - AAAI 2024.

3-**A. ZAYED**, GONCALO MORDIDO, SAMIRA SHABANIAN, SARATH CHANDAR “SHOULD WE ATTEND MORE OR LESS? MODULATING ATTENTION FOR FAIRNESS” - COLM 2024.

4-**A. ZAYED**, PRASANNA PARTHASARATHI, GONCALO MORDIDO, HAMID PALANGI, SAMIRA SHABANIAN, SARATH CHANDAR “DEEP LEARNING ON A HEALTHY DATA DIET : FINDING IMPORTANT EXAMPLES FOR FAIRNESS AND PERFORMANCE” - AAAI 2023.

5-**A. ZAYED** AND H. RIVAZ “FAST STRAIN ESTIMATION AND FRAME SELECTION IN ULTRASOUND ELASTOGRAPHY USING MACHINE LEARNING” - IEEE TUFFC, 12 MAY 2020.

6-**A. ZAYED**, Y. ITURRIA-MEDINA, A. VILLRINGER, B. SEHM AND C. STEELE “RAPID QUANTIFICATION OF WHITE MATTER DISCONNECTION IN THE HUMAN BRAIN” - IEEE EMBC 2020.

7-**A. ZAYED**, G. CLOUTIER AND H. RIVAZ “AUTOMATIC FRAME SELECTION USING CNN IN ULTRASOUND ELASTOGRAPHY” - IEEE EMBC 2020.

8-**A. ZAYED** AND H. RIVAZ “AUTOMATIC FRAME SELECTION USING MLP NEURAL NETWORK IN ULTRASOUND ELASTOGRAPHY” - ICIAR 2019.

9-**A. ZAYED** AND H. RIVAZ “FAST APPROXIMATE TIME-DELAY ESTIMATION IN ULTRASOUND ELASTOGRAPHY USING PRINCIPAL COMPONENT ANALYSIS” - IEEE EMBC 2019.

Paper review

NEURIPS - ICML - ACL - TMI.

Volunteering

TAUGHT PROBABILITY TO UNDER-REPRESENTED HIGH SCHOOL STUDENTS.
ASSISTED IN ORGANIZING COLLAS (LIFELONG LEARNING CONFERENCE).
HELPED KIDS WITH MATH HOMEWORK AT JEUNESSE UNIE YOUTH CENTER.
HELPED WITH EVENT COORDINATION AT MARCHÉ AHUNTSIC-CARTIERVILLE.
COOKED AND WASHED DISHES AND POTS AT TABLÉE DES CHEFS.
FILTERED THE DONATIONS AT LE MAGASIN DU CHAÎNON.