# Khaoula Chehbouni

#### EDUCATION

McGill University/Mila Montreal, QC

PhD in Computer Science Under the supervision of professor Golnoosh Farnadi Aug 2023 - Aug 2027

Email: kchehbouni@gmail.com

HEC Montreal/Mila

Montreal, QC Aug 2020 - Aug 2022

Master of Science in Business Intelligence; GPA: 4.07/4.3 Under the supervision of professors Golnoosh Farnadi and Gilles Caporossi

**HEC Montreal** Montreal, QC

DESS in Information Technologies; GPA: 3.99/4.3 Aug 2019 - Aug 2020

University of Montreal Montreal, QC Certificate in Applied Computer Science Jan 2017 - Dec 2017

HEC Montreal Montreal, QC Bachelor of Administration Aug 2011 - Dec 2015

#### SKILLS SUMMARY

• Programming Languages Python, R, SQL, SAS

• Languages French, English, Arabic, Spanish

#### EXPERIENCE

#### Mila - Quebec AI Institute

Montreal, QC

Jan 2023 - June 2023 Research Intern

Project: Worked on bias mitigation and privacy in sparse language models under professor Golnoosh Farnadi.

Statistics Canada Montreal, QC

Data Scientist Sep 2022 - Jan 2023

o **Position:** Work in the *Methods, Quality and Research* section in responsible AI

o **Project:** Developed a course on bias and fairness in machine learning

IBM x Ivado Montreal, QC

Research Assistant Oct 2021 - Apr 2022

o Project: Towards Discovering and Understanding how to improve the representation of women in STEM: A case study from IBM Inventorship and Patenting

o Description: Literature review and predictive modeling to understand inclusion issues in IBM's patents activities

La Presse x Ivado Montreal, QC

Data Journalist Intern May 2021 - Sep 2021

o Text Analysis: Scrapping, topic modeling, sentiment analysis, clustering, predictive modeling

• Writing: Published 9 articles on La Presse's official website, 3 of them were front-page articles

Montreal, QC Jan 2016 - Dec 2021

Canadians for Justice and Peace in the Middle East

• Managed IT bugs, transfer of data, and design improvement projects.

- Implemented the new website on the NationBuilder platform
- o Created practical tools and tutorials for management and accounting software

#### Research Projects

IT Manager

- Early Detection of Sexual Predators with Federated Learning. Chehbouni, K., Caporossi, G., Rabbany, R., De Cock, M., Farnadi, G., In: Workshop on Federated Learning: Recent Advances and New Challenges (in Conjunction with NeurIPS 2022).
- AI and Cities: Risks, Applications and Governance. Koseki, S., Jameson, S., Farnadi, G. et al., In: 4th Urban Economy Forum Conference 2022
- Leveraging AI for Natural Disaster Management: Takeaways From The Moroccan Earthquake. Ezzine, L., Bengio Y., Atanane, A. et al., Submitted to: 6th Workshop on Artifical Intelligence for Humanitarian Assistance and Disaster Response
- Unmasking Predators: Safeguarding Vulnerable Moroccan Communities Post-Earthquake. Taïk\*, A., Chehbouni\*, K., Jain\*, K., Akinfaderin, A., Bouzoubaa, K., Farnadi, G., Tazi, N., Submitted to: North Africans in Machine Learning Workshop at NeurIPS 2023.

- The Effect of the Typicality of Song Lyrics on Song Popularity: A Natural Language Processing Analysis of the British Top Singles Chart. Chehbouni\*, K., Carichon\*, F., Simonnot-Lanciaux\*, A., Caporossi, G., Dantas, D. C., Forthcoming
- Enhancing Privacy in Early Detection of Online Grooming Through Federated Learning and Differential Privacy Chehbouni, K., De Cock, M., Caporossi, G., Rabbany, R., Farnadi, G., Forthcoming
- The Impact of Sparsity on Fairness and Privacy in BERT. Chehbouni, K., Maratkhan, A., De Cock, M., Farnadi, G., Forthcoming
- Systematic Hazard Taxonomy Along the AI Lifecycle. Chehbouni, K., et al., Forthcoming

#### AWARDS AND SCHOLARSHIP

• Winner of the Morocco Solidarity Hackathon 2023

Our project "Unmasking Predators: Safeguarding Vulnerable Moroccan Communities Post-Earthquake" won the Morocco Solidarity Hackathon.

• HEC Montreal's 2022 Best Thesis Award

My thesis "Mitigating Online Grooming with Federated Learning" won the 2022 Best Thesis Award at HEC Montreal.

• Women in Machine Learning Travel Grant

I was awarded 650\$US to present my Masters work at the Women in Machine Learning Workshop at NeurIPS 2022.

• IVADO Excellency scholarship "Data Storytelling"

I was awarded one of IVADO's internship scholarship to conduct an internship at La Presse in data storytelling.

## COMMUNITY SERVICE

#### Mila - Quebec AI Institute

Montreal, QC

Present

- o I organized the Fairness, Accountability, Transparency, and Ethics reading group.
- o I reviewed papers for the SoLaR Workshop at NeurIPS 2023.

### Canada's New Democrats (NDP) Association

Montreal, QC

Financial Agent

PhD Student

2019 - 2020

- o Managed the financial operations of candidate Miranda's Gallo campaign in the district of Saint-Laurent.
- Reported financial results to Elections Canada.

#### Center of Development of the Tensift Region (CDRT)

Marrakesh, Morocco

Volunteer

2018

• Helped with the organization and with communications for the Young African Leaders Seminar.

Diocese of Montreal Montreal QC

Volunteer 2017

 $\circ$  Managed communications with sponsors for the Syrian refugee program and helped fill out applications.