Nicola Neophytou
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RESEARCH INTERESTS

Fairness and Trustworthy AI, AI for Social Good, Network Science, Recommender Systems, Privacy

EDUCATION

Mila Quebec AI Institute and Université de Montréal, Canada   2022 – 2024
MSc in Computer Science
Supervisor: Professor Golnoosh Farnadi
GPA 3.8

University of Manchester, UK   2015 – 2019
Masters in Physics
Grade 2:1 (66.5%)

RESEARCH EXPERIENCE

Fairness and Trustworthy AI, Mila Quebec AI Institute   2022-Present

- Sequential fairness and arbitrariness in mortgage lending applications
- Using culture to mitigate popularity bias in recommender systems
- Fair vaccination deployment using Influence Maximization on temporal urban area networks
- Fairness and privacy in ML with Federated Learning

Fairness in Recommender Systems   2020-2021

- Demographic fairness and explainability of unique users in recommender systems
- Published with Bhaskar Mitra, Microsoft Montréal and Prof Catherine Stinson, Queens University

PUBLICATIONS

- Promoting Fair Vaccination Strategies through Influence Maximization: A Case Study on COVID-19 Spread, AAAI 2024
- Privacy-Preserving Group Fairness in Cross-Device Federated Learning, AFCP Workshop Proceedings, PMLR 2022
- Revisiting Popularity and Demographic Biases in Recommender Evaluation and Effectiveness, ECIR 2022

AWARDS & SCHOLARSHIPS

- Mila EDI Scholarships Program award recipient in the Excellence scholarships – EDI in Research category, 2023

PRESENTATIONS & POSTERS

- PrivFairFL: Privacy-Preserving Group Fairness in Federated Learning, Montréal AI Symposium 2022
- Fair Targeted Immunization with Dynamic Influence Maximization, Women in Machine Learning Workshop, NeurIPS 2022

TEACHING EXPERIENCE

- Physics Tutoring, 2019 – 2022
- UK National Tutoring Programme, 2021

- FireTech Senior Python Language Tutor, 2021

LEADERSHIP EXPERIENCE

- Erasmus summer school Supervisor: Diversity in the Cultures of Physics, Barcelona, 2019
- Peer Support (PASS) Leader, University of Manchester, Manchester 2017–2019

SKILLS

Fairness & Trustworthy AI	fairness pre/in/post–processing, federated learning, dp–sgd (4 years)
Machine Learning & AI	python, tensorflow, pytorch, numpy, scikit–learn, scipy, pandas, keras (4 years)
Programming	Python (4 years), C++, MatLab
Typesetting	LaTeX
Languages	Native English, Intermediate French, Beginner Spanish

VOLUNTEERING

- AAAI Conference Workshop Volunteer, 2024
- NeurIPS Conference Women in Machine Learning Workshop Volunteer, 2022
- WWOOF Spain Farming Volunteer, 2020
- Fundraiser for Little Village Charity, 2020
- Sexpression Sex Education Teacher, 2017–2018
- WWOOF Canada Farming Volunteer, 2016
- Aid Distirbutor at Calais Refugee Camp, 2015

LINKS

GitHub	github.com/nicolaneo
LinkedIn	linkedin.com/in/nicola-neophytou