

Emmanouil (Manos) Kariotakis

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EDUCATION

KU Leuven

Doctoral Programme in Engineering Science (PhD)

Department of Electrical Engineering (ESAT)

Advisor: [Aritra Konar](#)

Sep 2023 - present

Technical University of Crete (TUC)

BSc & MEng in Electrical and Computer Engineering

Advisor: [Aggelos Bletsas](#)

Grade: 9.36/10 (*top 1% of total school's graduates as of Oct 2022*)

Summa cum laude

Sep 2017 - Oct 2022

RESEARCH INTERESTS

Graph Machine Learning, Algorithmic Fairness, Theoretical Machine Learning, Optimization, Signal Processing

EXPERIENCE

PhD Researcher

STADIUS Center for Dynamical Systems, Signal Processing and Data Analytics - ESAT, KU Leuven, Belgium

- Exploring Algorithmic Fairness in Graph Machine Learning

Sep 2023 - present

Research Assistant

Signal Processing Laboratory, Institute of Computer Science - FORTH, Greece

- Design and study of a system that leverages sparsity across input and intermediate layers of a neural network that gets trained and operates in a distributed manner by resource-constrained workers.

Advisors: [Grigorios Tsagkatakis](#), [Anastasios Kyrillidis](#) (Rice University)

Nov 2022 - Aug 2023

Undergrad Research Assistant

Telecommunication Systems Research Institute (TSI), TUC, Greece

- Research on asynchronous, in-network processing with probabilistic graphical model (PGM)-based inference algorithms.

Mar 2022 - Sep 2022

Research Intern

Signal Processing Laboratory, Institute of Computer Science - FORTH, Greece

Jul 2020 - Aug 2020

PUBLICATIONS

- [E. Kariotakis](#), A. Konar, "FairRARI: A Plug and Play Framework for Fairness-Aware PageRank", in International Conference on Machine Learning (ICML), 2026.
- [E. Kariotakis](#), A. Bodard, P. Patrinos, A. Konar, "Optimal Quasi-Clique Detection via Lasry-Lions Double Envelopes", in IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), 2026.
- [E. Kariotakis](#), N.D. Sidiropoulos, A. Konar, "Fairness-Aware Dense Subgraph Discovery", in Transactions on Machine Learning Research, 2025.
- [E. Kariotakis](#), G. Tsagkatakis, P. Tsakalides, A. Kyrillidis, "Leveraging Sparse Input and Sparse Models: Efficient Distributed Learning in Resource-Constrained Environments", in Conference on Parsimony and Learning (CPAL), PMLR, 2024.
- [E. Kariotakis](#) and A. Bletsas, "Probabilistic asynchronous inference in wireless networks with spectral clustering," in IEEE EUSIPCO, 2023.

WORKSHOPS - SYMPOSIUMS

- [E. Kariotakis](#), A. Konar, "FairRARI: A Plug and Play Framework for Fairness-Aware PageRank", in the Greeks in AI Symposium, Athens, Greece, 2026. *{Spotlight Oral Presentation}*
- [E. Kariotakis](#), N.D. Sidiropoulos, A. Konar, "Fairness-Aware Dense Subgraph Discovery", in the First Greeks in AI Symposium, Athens, Greece, 2025.

- E. Kariotakis, N.D. Sidiropoulos, A. Konar, “Fairness-Regulated Dense Subgraph Discovery”, in the Fourth European Workshop on Algorithmic Fairness, Eindhoven, The Netherlands, 2025.

TEACHING ASSISTANTSHIP

B-KUL-H0O99a – Mining and Learning on Graphs Faculty of Engineering Science, KU Leuven, Belgium	Spring 2025
B-KUL-I0D38b – Linear Algebra Faculty of Engineering Science, KU Leuven, Belgium	Fall 2024, 2025
CS317 – Applied Stochastic Processes Computer Science Department, University of Crete, Greece	Spring 2023
CS217 – Probability Theory Computer Science Department, University of Crete, Greece	Fall 2022

HONORS & AWARDS

Summa cum laude Technical University of Crete, Greece	Oct 2022
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SKILLS

Technical Skills	Python, Matlab, C++, L ^A T _E X, Git
Languages	English (fluent), French (A2), Greek (native)

ACTIVITIES

- Volunteer at 2023 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)
- Degree in Music Harmony, June 2016
- Playing the piano and the guitar