Sofiane ENNADIR

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Education

KTH Royal Institute of Technology Mar 2021 - Present

Ph.D candidate in Deep Learning for graphs

- Working under the supervision of Prof.Vazirgiannis where I investigate the robustness of Graph Neural Networks (GNNs) and their applications.

Ecole Polytechnique - IPP Paris Sep 2019 - Dec 2020

MSc in Data Science - M2 Data Science

- Under the supervision of Pr. Eric MOULINES and Pr. Erwan LE PENNEC.
- **Course work:** Deep Learning, Advanced learning for text and Graph, Optimization for Data Sciences, Statistical Learning Theory.

EMINES School Of Industrial Management - UM6P Sep 2014 - Aug 2019

Master of Engineering

- A Co-Directed Program by Ecole Polytechnique (L'X) and supervised by Pr. Eric MOULINES including 2 years preparation to EMINES-UM6P's Engineering cycle and a 3 years General, Industrial Management Engineering Courses.

Professional Experience

2021 - Present	PhD/Researcher at **KTH Royal Institute of Technology**	Stockholm
June - December 2021	Research Intern at **BNP Paribas**	Paris
April - Sep. 2019	Visiting Associate at **Boston Consulting Group - BCG**	Casablanca
June - Sep. 2018	Research Scholar at **University of Louisville**	Louisville, KY

Publications

Graph Convolutional Networks With Orthogonal Weights Are More Robust.
ABBAHADDOU Y.[1], ENNADIR S.[1] & Al. - Under Review at ICLR 2024.

A Simple and Yet Fairly Effective Defense for Graph Neural Networks.
ENNADIR S. & Al. - Accepted at AAAI 2024.
- Initial version presented at *AdvML Workshop, ICML 2023.*

UnboundAttack : Generating Unbounded Adversarial Attacks to Graph Neural Networks
ENNADIR S. & Al. - Oral at the 12th International Conference on Complex Networks and their Applications 2023.

Conformalized Adversarial Attack Detection for Graph Neural Networks.
ENNADIR S. & Al. - Oral at the 12th Symposium on Conformal and Probabilistic Prediction with Applications.

Generating Graph Perturbations to Enhance the Generalization of GNNs.
ENNADIR S. & Al. - Under Review

Structure-Aware Antibiotic Resistance Classification Using Graph Neural Networks.
Qabel A., ENNADIR S. & Al. - AI4Science Workshop, Neurips 2022.

[1]Denotes Equal Contribution

- Extended version is currently under review.

Interpretable Graph Neural Networks for Tabular Data.
Alkhatib A., ENNADIR S. & Al. - To be submitted.

Languages

Languages | *Fluent:* English (Toef Score 102). *Native:* Arabic, French
Programming | *Proficient:* Python. - *Prior experience:* MATLAB, C++, SQL, HTML.
Software Tools | PyTorch, PyTorch Geometric, Deep Graph Library, TensorFlow.

Awards

WASP Doctoral Scholarship funded by the Knut and Alice Wallenberg Foundation 2021
OCP Full Excellence merit scholarship for outstanding results in entrance examination. 2014

References

Prof. Michalis Vazirgiannis KTH/ Ecole Polytechnique - [mvaz@kth.se]

Prof. Henrik Boström KTH - [bostromh@kth.se]

Prof. Eric Moulines Ecole Polytechnique - [eric.moulines@polytechnique.edu]

Prof. Hichem Frigui University of Louisville - [h.frigui@louisville.edu]