

Meryem Janati Idrissi

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Ben-Guéir, Morocco

Email
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Research Interests

My research interests revolve around intrusion detection applied into the field of distributed systems, with an emphasis on federated learning specifically network intrusion detection systems. The goal of my work is to bridge the gap between the two domains as well as enhance federated learning algorithms.

Education

Mohammed VI Polytechnic University <i>Ph.D. Computer Science</i> <ul style="list-style-type: none">Advisor: Ismail Berrada	Oct. 2019 – Present <i>Ben-Guéir, Morocco</i>
Mohammed VI Polytechnic University <i>Predoctoral year</i> Faculty of Science Dhar El Mhraz <i>M.Sc. Big Data Analytics & Smart Systems</i> <ul style="list-style-type: none">Advisor: Ismail Berrada	Oct. 2018 – Sept. 2019 <i>Ben-Guéir, Morocco</i> Oct. 2016 – Jun. 2018 <i>Fez, Morocco</i>
Faculty of Science Dhar El Mhraz <i>B.A. Mathematics & computer science</i>	Oct. 2013 – Jun. 2016 <i>Fez, Morocco</i>

Publications

Meryem Janati Idrissi, Ismail Berrada, and Guevara Noubir. FEDBS: Learning on non-iid data in federated learning using batch normalization. In 2021 IEEE 33rd International Conference on Tools with Artificial Intelligence (ICTAI), pages 861–867. IEEE, 2021.

Meryem Janati Idrissi, Hamza Alami, Abdelkader El Mahdaouy, Abdellah El Mekki, Soufiane Oualil, Zakaria Yartaoui, and Ismail Berrada. Fed-ANIDS: Federated learning for anomaly-based network intrusion detection systems. In Expert Systems with Applications, Volume 234, 2023.

Meryem Janati Idrissi, Hamza Alami, Abdelhak Bouayad, and Ismail Berrada. NF-NIDS: Normalizing Flows for Network Intrusion Detection Systems. WINCOM'23

Hamza Alami, **Meryem Janati Idrissi**, Abdelkader El Mahdaouy, Abdelhak Bouayad, Zakaria Yartaoui, and Ismail Berrada. NF-NIDS: Investigating Domain Adaptation for Network Intrusion Detection. WINCOM'23

Talks & Appearances

Netys'23 <https://netys.net/>.

Talk: Deep Learning for Anomaly Detection. Presented at UM6P journée des doctorants 2022 (JDD'22).

AFIRM'20 (ACM SIGIR/SIGKDD Africa Summer School on Machine Learning for Data Mining and Search).

NASSMA'19 (North African Machine Learning Summer School) <https://nassma.um6p.ma/>.
Metis & Netys'19 <http://metis2019.netys.net/>.

Posters

JDD'21 Learning Batch Statistics for Non-IID Data in Federated Learning.

Academic projects

Design and implementation of a secure messaging system

Tools: Java

Apr. 2019

Implementation of Paxos algorithm

Tools: Java

Mar. 2019

Master thesis: Extracting the state of the driver from car's camera using Deep Learning

Tools: Python

Feb.-Jun. 2018

Implementation of a driver guide and safety app for the GM NG Infotainment System

Tools: Javascript

Jan. 2018

Implementation of a files malware analyzer

Tools: C#

Jun. 2017

Conceptual Modeling of Information Systems of a travel agency

Tools: ADONIS, OpenMP

Jun. 2017

Graduation Project: Realization of a trilingual glossary with two interfaces, user and admin

Tools: PHP and Javascript

Jun. 2016

Skills

Technical skills: Python, Pytorch, Java, C/C++, Slurm, HPC.

Spoken Languages: Arabic (Native), French/English (Fluent).

Other Interests: Gardening