

CURRICULUM VITAE

Guillaume Metzler

Born the 7 of January 1992 in HAGUENAU, FRANCE

29 years old

Nationality : French

PhD in Computer Science

Assistant Professor

<https://guillaumemetzler.github.io>



Current Affiliation

Teaching : Institute of Communication (ICOM) - University Lumière Lyon 2, University of Lyon.

Research : ERIC Laboratory (K73) - 5 Avenue Pierre Mendès France, 69500 Bron.

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Research Topics

- Imbalanced (Binary) Classification
- Cost-Sensitive Learning
- Metric Learning and Representation Learning
- Boosting
- SemiDefinite Programming
- Domain Adaptation

Professional Experiences

09/2020 - ...

Assistant Professor

ERIC Laboratory UR 3083, University Lumière Lyon 2, University of Lyon

04/2020 - 08/2020

Post-Doctoral Researcher

Hubert Curien Laboratory UMR CNRS 5516, University Jean-Monnet, University of Lyon

09/2019 - 03/2020

Post-Doctoral Researcher

Hubert Curien Laboratory UMR CNRS 5516, University Jean-Monnet, University of Lyon

Education

2019

PhD in Computer Science

PhD from University Jean-Monnet, University of Lyon, defended the 25th of September 2019.

PhD Director : Marc Sebban (Professor)

Co-supervisors : Elisa Fromont (Professor) et Amaury Habrard (Professor)

PhD Topic : *Learning from Imbalanced Data : an Application to Bank Fraud Detection*

Members of the Jury :

Yves Grandvalet (Professor) - President

Marianne Clausel (Professor) - Reviewer

Marc Tommasi (Professor) - Reviewer

Industrial PhD funded by the French ANRT and in Partnership with Blitz Business Services Company.

2015

Magistère of Fundamental et Applied Mathematics

UFR of Mathematics and Computer Science, University of Strasbourg

2015

Master of applied Mathematics : Applied Mathematics to Biology and Medecine

University Claude Bernard, University of Lyon

2013

Bachelor of Fundamental et Applied Mathematics

UFR of Mathematics and Computer Science, University of Strasbourg

2012

Classe Préparatoire aux Grandes Ecoles (CPGE) - Mathematics and Physic (MPSI then MP)

Kléber High School, Strasbourg

2010

Baccalauréat Scientifique

Alphonse Heinrich High School, Haguenau

Teaching

Teachings Provided

The table below lists the courses I have taught since my PhD. It is not representative of the number of hours of teaching done but it gives an overview of the teaching done.

The courses presented are those carried out at the Jean Monnet University (UJM), at the Lyon 2 University (ICOM) and at the Lyon Management School (EM Lyon).

This part will remain in French since it can only be used by the French Institutions.

Bachelor - Formation	Type	Volume horaire	Course
Niveau Licence 1			
BBA 1 (EM Lyon)	CM/TD	12h	Mathématiques et Statistiques Appliquées à la Gestion
BBA 1 (EM Lyon)	CM/TD	12h	Analyse de Contenus et de Données
Mathématiques, Informatique, Sciences pour l'Ingénieur et Chimie (MISPIC)	TD	8h	Outils Numériques - \LaTeX
Mathématiques, Informatique, Sciences pour l'Ingénieur et Chimie (MISPIC)	TD/TP	32h	Outils Informatiques - Python
Mathématiques, Informatique, Sciences pour l'Ingénieur et Chimie (MISPIC)	TP	16h	Bases de Données Relationnelles
Niveau Licence 2			
Mathématiques et Informatiques Appliqués aux Sciences Humaines et Sociales (MIASHS)	CM/TD	40h	Algèbre Linéaire & Analyses de Données
Niveau Licence 3			
Informatique Décisionnelle et Statistiques (IDS)	TD/TP	19h	Statistiques Inférentielles
Informatique Décisionnelle et Statistiques (IDS)	CM/TD/TP	48h	Systèmes d'Informations et Bases de Données Relationnelles

Mathématiques et Informatiques Appliqués aux Sciences Humaines et Sociales (MIASHS)	TD	10.5h	Modèles Linéaires
Mathématiques et Informatiques Appliqués aux Sciences Humaines et Sociales (MIASHS)	TD	10.5h	Sondages

Master - Formation	Nature	Volume horaire	Intitulé du module
Niveau Master 1			
Informatique	TP	14h	Statistiques Inférentielles
Machine Learning and Data Mining (MLDM, UJM)	CM/TD/TP	10h	Convex Optimization and Operational Research (English)
Colour in Informatics and Media Technology (COSI, UJM)	CM	5h	Introduction to Machine Learning (English)
Niveau Master 2			
Statistique et Informatique pour la Science des Données (SISE)	CM/TD/TP	21h	Fouilles de Données Massives
Business Intelligence et Big Data (BIBD)	CM/TD/TP	21h	Fouilles de Données Massives

Internships Supervision (Exclude Master 2 Students Research Internship)

Léa Abriel

University Lumière Lyon 2, 2nd year of Bachelor MIASHS - Economy-Management (2021)

Topic : *"Machine Learning for Fraud Detection with Ranking Methods"*

Duration : 6 weeks (2021)

Mathilde Rodrigues Da Rocha

University Lumière Lyon 2, 2nd year of Bachelor MIASHS - Cognitive Sciences (2021)

Topic : *"Study of Graph Neural Networks, applied to Cognitive Sciences"*

Duration : 5 weeks (2021)

Co-Supervisor : Antoine Gourru

Involvement in Research Projects and Contracts

01/2022 - 12/2025	ANR DIKé Project - Project Member Title : <i>Bias, fairness and ethics of compressed NLP models</i> Project Leader : Christophe Gravier (LabHC, UMR CNRS 5516)
04/2020 - 08/2020	ACADEMICS Poject (Call Scientific Breakthrough) - Project Member as Post-Doctoral Researcher
09/2019 - 03/2020	ANR LIVES Project - Project Member as Post-Doctoral Re- searcher Title : <i>Learning with Interacting Views</i>

Services, Reviews and Committe

Administrative responsibilities

01/2022 - ...	Co-Responsible of Scientific Seminars - ERIC Laboratory Co-Responsible : Mohamed-Lamine MESSAI
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Program Comittee Member

2022	Extraction et Gestion des Connaissances (EGC) International Conference on Information Management and Big Data (SIM-Big)
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Organization Committe Member

2023	Extraction et Gestion des Connaissances (EGC)
2021	Conférence sur l'Apprentissage Automatique (CAp)
2018	Multidisciplinary International Social Networks Conference (MISNC)

Review Activities

Conferences

2022	Extraction et Gestion des Connaissances (EGC)
2019	International Conference on Artificial Intelligence, Information Processing and Cloud Computing (AIIPCC) International Conference on Artificial Intelligence and Statistics (AI-STATS)
2018	European Conference on Machine Learning (ECML)
2017	European Conference on Machine Learning (ECML)

Journals

2021	Expert Systems With Applications (ESWA) Electronics (MDPI) Mathematics (MDPI) Pattern Recognition Letter (PRL) Transactions on Pattern Analysis and Machine Learning (TPAMI)
2020	Applied Stochastic Models in Business Industry (ASMB) :

Publications

International Conferences

5. L.Gautheron, P.Germain, A.Habrard, G.Metzler, E.Morvant, M.Sebban and V.Zantedeschi, *Landmark-based Ensemble Learning with Random Fourier Features and Gradient Boosting*, In the 31st European Conference on Machine Learning & Principles and Practice of Knowledge Discovery in Databases (ECML-PKDD), Ghent, Belgique, Septembre 2020 (core ranking A).
4. R.Viola, R.Emonet, A.Habrard, G.Metzler and M.Sebban, *Learning from Few Positives : a Provably Accurate Metric Learning Algorithm to Deal with Imbalanced Data*, In the 29th International Joint Conference on Artificial Intelligence (IJCAI), Yokohama, Japon, Juillet 2020 (core ranking A*).
3. R.Viola, R.Emonet, A.Habrard, G.Metzler, S.Riou and M.Sebban, *An Adjusted Nearest Neighbor Algorithm Maximizing the F-Measure from Imbalanced Data*, In Proceedings in

The 31st International Conference on Tools with Artificial Intelligence (ICTAI), Portland, Oregon, USA, Novembre 2019 (core ranking B).

2. K.Bascol, R.Emonet, E.Fromont, A.Habrard, G.Metzler and M.Sebban, *From Cost-Sensitive Classification to Tight F-Measure Bounds*, In Proceedings in The 22nd International Conference on Artificial Intelligence and Statistics (AISTATS), Naha, Okinawa, Japon, Avril 2019 (core ranking A).
1. G.Metzler, X.Badiche, B.Belkasmi, E.Fromont, A.Habrard and M.Sebban, *Tree-based Cost Sensitive Methods for Fraud Detection in Imbalanced Data*, In Proceedings in the 17th International Symposium on Intelligent Data Analysis (IDA), 's-Hertogenbosch, Pays-Bas, Octobre 2018 (core ranking A).

International Journals

2. R.Viola, R.Emonet, A.Habrard, G.Metzler, S.Riou and M.Sebban, *An Adjusted Nearest Neighbor Algorithm Maximizing the F-Measure from Imbalanced Data*, International Journal on Artificial Intelligence Tools (IJAIT), January 2021 (Q3).
1. G.Metzler, X.Badiche, B.Belkasmi, E.Fromont, A.Habrard and M.Sebban, *Learning Maximum Excluding Ellipsoids with Theoretical Guarantees*, Pattern Recognition Letter (PRL), September 2018 (Q2).

National Conferences

5. L.Gautheron, P.Germain, A.Habrard, G.Metzler, E.Morvant, M.Sebban and V.Zantedeschi, *Apprentissage d'ensemble basé sur des points de repères avec des caractéristiques de Fourier aléatoires et un renforcement du gradient*, Conférence pour l'Apprentissage Automatique (CAp), Vannes, Juin 2020.
4. R.Viola, R.Emonet, A.Habrard, G.Metzler and M.Sebban, *MLFP : Un algorithme d'apprentissage de métrique pour la classification de données déséquilibrées*, Conférence pour l'Apprentissage Automatique (CAp), Vannes, Juin 2020.
3. R.Viola, R.Emonet, A.Habrard, G.Metzler, S.Riou and M.Sebban, *Une version corrigée de l'algorithme des plus proches voisins pour l'optimisation de la F-mesure dans un contexte déséquilibré*, Conférence pour l'Apprentissage Automatique (CAp), Toulouse, Juillet 2019.
2. K.Bascol, R.Emonet, E.Fromont, A.Habrard, G.Metzler and M.Sebban, *Un algorithme d'optimisation de la F-Mesure par pondération des erreurs de classification*, Conférence pour l'Apprentissage Automatique (CAp), Rouen, Juin 2018.
1. G.Metzler, X.Badiche, B.Belkasmi, E.Fromont, A.Habrard and M.Sebban, *Apprentissage de Sphères Maximales d'exclusion avec Garanties Théoriques*, Conférence pour l'Apprentissage Automatique (CAp), Grenoble, Juin 2017.