

Marie Le Guilly | CV

11 rue Belfort – 69004 Lyon – France

☎ +33 6 28 07 92 58 • ✉ marie.le-guilly@insa-lyon.fr

Formation

Education

PhD in computer science

LIRIS research laboratory and INSA Lyon

Interactive query languages for data exploration using machine learning

Lyon

2017-...

Engineering degree in computer science and information technology

INSA (National Institute of Applied Sciences)

2 years of intensive undergraduate program

3 years specialization in computer science

Lyon

2012–2017

ERASMUS Program exchange

Danmarks Tekniske Universitet

One year exchange with the Erasmus Program

Master level education, specialization in Machine Learning

Copenhagen

2015–2016

Work experiences

Research internship

University of Waterloo

Three month research internship at the Data science groupe with Prof. Ihab Ilyas.

Enhancing Schema Discovery from RDF using Machine Learning

Canada

September–November 2018

Master Thesis

LIRIS

Research project on SQL query completion

Lyon

February–June 2017

Internship

LIRIS and Dodin Campenon Bernard (VINCI)

Analysis of the data from a boring machine

Prediction of soil compaction based on the machine's parameters

Lyon

June–September 2016

Internship

MORPHO (SAFRAN)

Implementation of a test platform for a software suite

Test of a biometric fingerprints detection platform

Paris

June–September 2015

Recherche

I'm currently finishing my PhD on relational data selection for predictive models. I'm especially interested by the intersection of two domains: machine learning and databases. Ongoing projects focus on the study of classification and regression datasets, to evaluate their adequacy with the predictive task for which they are used, using functional dependencies. For this, I'm involved in two industrial collaborations, with Cemafroid and Airbus Helicopters. I'm also interested by data exploration, especially SQL-based solutions to assist databases users in selecting the data they are interested in.

Publications

International Conferences.....

Contextualisation of Datasets for better classification models: Application to Airbus Helicopters Flight Data **Lyon**
2020
Marie Le Guilly, Daouayry Nassia, Pierre-Loic Maisonneuve, Ammar Mechouche, Jean-Marc Petit and Marian Scuturici
24th European Conference on Advances in Databases and Information Systems (ADBIS, 10 pages (to appear)

Attempt to better trust classification models: Application to the Ageing of Refrigerated Transport Vehicles (industrial paper) **Nantes**
2020
Marie Le Guilly, Claudia Capo, Marian Scuturici, Jean Marc Petit, Rémi Revellin, Jocelyn Bonjour, Gérald Cavalier
25th International Symposium on Methodologies for Intelligent Systems (ISMIS'20), 10 pages (to appear)

ExpIIQuE: Interactive Databases Exploration with SQL (demo paper) **Pékin**
2019
Marie Le Guilly, Jean-Marc Petit, Vasile-Marian Scuturici and Ihab Ilyas
28th ACM International Conference on Information and Knowledge Management, CIKM 2019, China, 2019, 4 pages

A First Experimental Study on Functional Dependencies for Imbalanced Datasets Classification **2019**
Marie Le Guilly, Jean-Marc Petit and Vasile-Marian Scuturici
« Communications in Computer and Information Science » series, Springer
Revised Selected Papers from the International Workshop ISIP, Japan, 2018, 17 pages

International conferences with abstract-based selection.....

Ageing of refrigerated transport vehicles: development of a numerical predictive model **Nantes**
2020
Marie Le Guilly, Claudia Capo, Léo Pape, Marian Scuturici, Jean Marc Petit, Rémi Revellin, Jocelyn Bonjour, Gérald Cavalier
6th IIR conference on sustainability and the cold chain, 9 pages (to appear)

National Conferences.....

Evaluation de la faisabilité de classification en utilisant les dépendances fonctionnelles **Lyon**
2019
Marie Le Guilly, Jean-Marc Petit and Vasile-Marian Scuturici
BDA 2019 35ème conférence sur la Gestion de Données — Principes, Technologies et Applications, 12 pages

ExpIIQuE : Exploration Interactive de Bases de Données en SQL **Lyon**
2019
Marie Le Guilly, Jean-Marc Petit, Vasile-Marian Scuturici and Ihab Ilyas
BDA 2019 35ème conférence sur la Gestion de Données — Principes, Technologies et Applications, 4 pages

Partitioning queries for data exploration using query extensions **Bucarest**
2018
Marie Le Guilly, Ihab Ilyas, Jean-Marc Petit and Vasile-Marian Scuturici
BDA 2018 34ème conférence sur la Gestion de Données — Principes, Technologies et Applications

Langages de requêtes interactifs pour l'exploration de données **Nancy**
2017
Marie Le Guilly
BDA 2017 33ème conférence sur la Gestion de Données — Principes, Technologies et Applications
Article Doctorant

Retour d'expérience sur l'analyse des données d'un tunnelier **Nancy**
2017
Marie Le Guilly, Jean-Marc Petit, Vasile-Marian Scuturici
BDA 2017 33ème conférence sur la Gestion de Données — Principes, Technologies et Applications

Technical Reports.....

SQL Query Completion for Data Exploration **Lyon**
2018
Marie Le Guilly, Jean-Marc Petit, Vasile-Marian Scuturici

Patents.....

Procédé de complétion de requêtes SQL

Marie Le Guilly, Jean-Marc Petit, Vasile-Marian Scuturici
French patent FR1757682

France

Filed August 2017

Talks


Could Functional Dependencies Help to Identify Balanced Classification Datasets ?

ISIP Workshop 

Fukuoka

14th May 2018

SQL query completion for data exploration

DECADE Mini-symposium , Symposium for the Mastodons DECADE project

Lyon

9th November 2017

Teaching

I've always really enjoyed teaching, which is why I've been tutoring students during my own studies: I've tutored high school students as well as disabled students from INSA Lyon who required special assistance. During my PhD, I've been teaching every year, for 64 hours per year, to first and second year students from INSA, on java programming. I've also been supervising interns on research project at the lab.

TP et TD (192h in 3 years)

Advanced programming

INSA Lyon

Introduction to data structure, and projects supervision
18h/year to 26 2nd year students

Lyon

2018-...

Introduction to relational databases

INSA Lyon

Databases conception and SQL queries
22h/years to 26 2nd year students

Lyon

2018-...

Object-oriented programming

INSA Lyon

Teaching of OOP and small projects supervision
24h/year to 26 st year students

Lyon

2018-...

Introduction to programming

INSA Lyon

Bases of programming in Java
21h//year to 26 st year students

Lyon

2017-...

Maths and Physics tutoring

Robert Doisneau Highschool

Tutoring of high school students

Vaulx en velin

2014-2017

Tutoring of disabled students

INSA Lyon

1st and 3rd year students

Lyon

2014-2015

Inernships supervision

4th year student supervision

Cemafroid and LIRIS

Lyon

April-July 2019

Supervisor for the internship of a student
Topic : Creating a predictive model for the ageing of refrigerated vehicles

3rd year student supervision

LIRIS

Supervisor for the internship of a student
Topic : Relational structure and lattices: application to SQL

Lyon
June-July 2019

Overseer for worker internship

INSA Lyon

Administrative supervisor for 1st year students during their worker internship

Lyon
June 2017 and 2018

Other activities

Formations

ACM Europe Summer School in Data Science

Datascience formation

Lectures and practical sessions
Ranked 1st among the 55 participants of the school

Athens
July 2019, 1 week

School on scientific mediation

Organized by the "société informatique de France (SIF)"

Creation of activities to understand computer science concepts without a computer

Toulouse
June 2018, 3 days

EDBT summer school

Lectures and practical sessions

Topic: Adding Value to Data

Genova Nervi
September 2017, 1 week

Responsibilities

Elected member for the board of the doctoral school

PhD students representative for the doctoral school

Board member for the doctoral school

Lyon
2018-2020

Participation à l'organisation de conférences

Helper for the congress of the French computer science society

Student volunteer for the SIG congress

Logistic help, welcome of the participants

Lyon
February 2020

Helper for the BDA national conference

Student volunteer for a conference

Logistic help for the planning of the conference, and during the sessions

Lyon
October 2019

Technical skills

Programmation: Python, Java, C/C++

OS: GNU/Linux, Microsoft Windows

Databases: PL/SQL, MySQL, Oracle

Web: HTML, Javascript

Outils: Latex, Git, SVN

Maths: Matlab, Maple

Langues

English: Advanced (TOEFL : 980/990)

Spanish: conversational