Liste de Publications

Moncef GAROUANI

19 Mai 2023

Mes publications peuvent être regroupées selon deux grandes catégories :

- Les travaux de mon doctorat à l'ULCO— Laboratoire d'Informatique Signal et Image de la Côte d'Opale [1-4 ; 6-12 ; 19] ont trait à **l'automatisation de la sélection, la paramétrisation et l'explicabilité automatique des algorithmes de l'IA**. Pour ces travaux j'ai contribué à la majorité des démarches scientifiques, de la proposition et l'implémentation des approches, à l'analyse, la rédaction, et à la présentation des résultats, sous la supervision de mon directeur de thèse Mourad Bouneffa.
- Les publications [13, 14, 15, 16], publiées avant et pendant ma thèse, concernent des travaux réalisés au cours de mon stage de recherche M2 (2018) et portent sur le **traitement automatique du langage naturel** (NLP). Ces publications sont basées sur les résultats de collaboration avec le laboratoire LSIA—USMBA. À ceux-là, pour lesquels j'ai été le principal acteur, s'ajoutent des papiers de collaborations ayant tout particulièrement trait à mes thèmes d'intérêts scientifiques [5, 17, 18].

Résumé

- 6 publications dans des journaux internationaux et 2 articles soumis
  - 6 articles (JBD, SoftwareX, IJAMT, IJAI)
  - 2 soumissions (ACM Computing Surveys, Progress in Artificial Intelligence)
- 11 publications dans des conférences internationales (ICEIS, ICABDE, SADASC, etc.)
- 1 publication dans workshop international & 2 posters dans des instituts d'été internat.
- 1 logiciel publié dans le dépôt officiel du langage de programmation Python (PyPI)

Journal	Base de données	Impact factor	Quartile
Journal of Big Data	Scopus	10.835	Q1
The International Journal of Advanced Manufacturing Technology	Scopus	3.563	Q1
ACM Computing Surveys	Scopus	14.324	Q1
SoftwareX	Scopus	2.868	Q2
Progress in Artificial Intelligence	Scopus	5.20	Q2
IAES International Journal of Artificial Intelligence	Scopus	2.16	Q3
International Conf. on Enterprise Information Systems	Scopus	-	B1

Table 1 - Rangs des journaux et conférences

Journaux

1. **Garouani, M.,** Ahmad, A., Bouneffa, M., Hamlich, M. Autoencoder-kNN meta-model based data characterization approach for an automated selection of AI algorithms. *Journal of Big Data* (2023) DOI : 10.1186/s40537-023-00687-7
2. **Garouani, M.,** Ahmad, A., Bouneffa, M., Hamlich, M., *et al*. Towards big industrial data mining through explainable automated machine learning. *The International Journal of Advanced Manufacturing Technology* (2022). DOI: 10.1007/s00170-022-08761-9
3. **Garouani, M.,** Ahmad, A., Bouneffa, M., Hamlich, M., *et al*. Using meta-learning for automated algorithm selection and configuration: an experimental framework for big industrial data. *Journal of Big Data* (2022) DOI : 10.1186/s40537-022-00612-4
4. **Garouani, M.,** Ahmad, A., Bouneffa, M., Hamlich, M., AMLBID: An auto-explained Automated Machine Learning tool for Big Industrial Data. *SoftwareX* (2021) 100919, DOI : 10.1016/j.softx.2021.100919
5. Chaabi M., Hamlich M., and **Garouani, M**., Product defect detection based on convolutional autoencoder and one-class classification. *IAES International Journal of Artificial Intelligence* (2022). DOI: 10.11591/ijai.v12.i2.pp912-920
6. **Garouani, M.,** Ahmad, A., Bouneffa, M., Hamlich, M., AMLBID2.0: An auto-explained Automated Machine Learning tool for Big Industrial Data. *SoftwareX* [**In press**]
7. **Garouani, M.,** Ahmad, A., Bouneffa, M., A Survey and Perspective View of Meta-Learning for Automated Algorithms Selection and Parametrization. **Submitted** to *ACM Computing Surveys* (2023).
8. **Garouani, M.** and Bouneffa, M. Automated Machine Learning Hyperparameters Tuning through Meta-Guided Bayesian Optimization. **Submitted** to *Progress in Artificial Intelligence* (2023).

Conférences Internationales

9. **Garouani, M.,** Ahmad, A., Bouneffa, M., Hamlich, M. (2022). Scalable Meta-Bayesian Optimization for Machine Learning Hyperparameters optimization. In: *Smart Applications and Data Analysis*. SADASC 2022. Communications in Computer and Information Science, vol 1677. Springer, Cham., DOI: 10.1007/978-3-031-20490-6_14
10. **Garouani, M.,** Ahmad, A., Bouneffa, M., Hamlich, M., *et al*. (2021). Towards the Automation of Industrial Data Science: A Meta-learning based Approach. *In Proceedings of the 23rd International Conference on Enterprise Information Systems* - Volume 1: ICEIS, pages 709-716. DOI : 10.5220/0010457107090716
11. **Garouani, M.,** Ahmad, A., Bouneffa, M., Hamlich, M., *et al*. (2021). Towards meta-learning based data analytics to better assist the domain experts in industry 4.0. In: *The International Conference on Artificial Intelligence and Big Data in Digital Era (ICABDE)*, Lecture Notes on Data Engineering and Communications Technologies. Springer, Cham. DOI : 10.1007/978-3-030-97610-1_22
12. **Garouani, M.,** Hamlich, M., Ahmad, A., Bouneffa, M., *et al*. (2021). Towards an automatic assistance framework for the selection and configuration of machine-learning-based data analytics solutions in industry 4.0. In *the Proceedings of the 5th International Conference on Big Data and Internet of Things*. BDIoT 2021. Lecture Notes in Networks and Systems, vol 489. Springer, Cham. DOI : 10.1007/978-3-031-07969-6_1

13. **Garouani M.,** Chrita H., Kharroubi J. (2021). Sentiment Analysis of Moroccan Tweets Using Text Mining. In: *Digital Technologies and Applications. International Conference on Digital Technologies and Applications (ICDTA21).* Lecture Notes in Networks and Systems, vol 211. Springer, Cham. DOI: 10.1007/978-3-030-73882-2_54
14. **Garouani M.,** Kharroubi J. (2022). Towards a New Lexicon-Based Features Vector for Sentiment Analysis: Application to Moroccan Arabic Tweets. In: *Advances in Information, Communication and Cyber security (ICI2C)*. Lecture Notes in Networks and Systems, vol 357. Springer, Cham. DOI : 10.1007/978-3-030-91738-8_7
15. **Garouani M.,** Kharroubi J. (2022). MAC: An open and free Moroccan Arabic corpus for sentiment analysis. In: *Innovations in Smart Cities Applications Volume 5. SCA'2021.* Lecture Notes in Networks and Systems. vol 393. DOI: 10.1007/978-3-030-94191-8_68
16. **Garouani M.,** Zaysa, K. (2022). Leveraging the Automated Machine Learning for Arabic Opinion mining: A Preliminary Study on AutoML tools and comparison to human performance. In: *Digital Technologies and Applications (ICDTA22).* Lecture Notes in Networks and Systems. vol 455. Springer, Cham. DOI: 10.1007/978-3-031-02447-4_17
17. Chaabi, M., Hamlich, M., **Garouani, M.,** (2022). Evaluation of AutoML tools for manufacturing applications. *In: Proceedings of the 12th International Conference on Integrated Design and Production.* Lecture Notes in Mechanical Engineering. **[in Press]**
18. M. Choaib, **M.Garouani**, *et al.* Automated Decision Support Framework for IoT : Towards a Cyber Physical Recommendation System". In *Proceedings of the 25th International Conference on Enterprise Information Systems* (ICEIS 2023). **[in Press]**
19. **Garouani, M.,** Bouneffa, M., Ahmad, A., Explaining Meta-features Importance in Meta-learning through Shapley Values". In *Proceedings of the 25th International Conference on Enterprise Information Systems* (ICEIS 2023). **[in Press]**

Workshops & Posters

20. **Garouani, M.,** Ahmad, A., Bouneffa, M., Hamlich, M., "Meta-learning for automating industrial data science". In *the 4EU+ International Workshop on Recent Advancements in Artificial Intelligence* (2022), Gargnano del Garda, Italy.
21. **Garouani, M.,** Ahmad, A., Bouneffa, M., Hamlich, M., *et al*. "Towards industrial data science through explainable automated machine learning". POSTER In: *MTE Pole's Doctoral Day* (2021), ULCO University, Calais, France.
22. **Garouani, M.,** Ahmad, A., Bouneffa, M., Hamlich, M., "Explainable Automated Machine Learning". POSTER In : *IA² – Institut d'Automne en Intelligence Artificielle* (2021), Sorbonne Université, Paris, France. DOI: 10.54985/peeref.2208p4898652

Logiciels

23. **Garouani, M.,** Bouneffa, M., Ahmad., AMLBID: An auto-explained Automated Machine Learning tool for Big Industrial Data. Available at: Python Packages Index

Thèses

Garouani, M., (2019-2022) Towards efficient and explainable Automated machine learning pipelines design: Application to industry 4.0 data. **Thèse de doctorat** en cotutelle entre l'université du littorale côte d'Ôpale et l'université Hassan II. Sous la direction de Mourad Bouneffa et Mohamed Hamlich. theses.fr/2022DUNK0620