Liste de Publications

**Moncef GAROUANl**

**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)

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| **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](https://doi.org/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](https://doi.org/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](https://doi.org/10.1186/s40537-022-00612-4%20)
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](https://doi.org/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](http://doi.org/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**

1. **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](https://doi.org/10.1007/978-3-031-20490-6_14)
2. **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](https://www.scitepress.org/Link.aspx?doi=10.5220/0010457107090716)
3. **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](https://doi.org/10.1007/978-3-030-97610-1_22)
4. **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](https://doi.org/10.1007/978-3-031-07969-6_1)
5. **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](https://link.springer.com/chapter/10.1007/978-3-030-73882-2_54)
6. **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](https://link.springer.com/chapter/10.1007/978-3-030-91738-8_7)
7. **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](https://doi.org/10.1007/978-3-030-94191-8_68)
8. **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](https://doi.org/10.1007/978-3-031-02447-4_17)
9. 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](https://www.google.fr/search?hl=fr&tbo=p&tbm=bks&q=bibliogroup:%22Lecture+Notes+in+Mechanical+Engineering%22&source=gbs_metadata_r&cad=3). [**in Press**]
10. 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**]
11. **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**

1. **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.
2. **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.
3. **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](https://doi.org/10.54985/peeref.2208p4898652)

**Logiciels**

1. **Garouani, M.,** Bouneffa, M., Ahmad., AMLBID: An auto-explained Automated Machine Learning tool for Big Industrial Data. Available at: [Python Packages Index](https://pypi.org/project/AMLBID/)

**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](https://www.theses.fr/2022DUNK0620)