Adán José-García

Research center in Computer Science, Signal and Automatic Control of Lille
Department of Computer Science, University of Lille – Lille, 59655, FR

 0 641-141-564 • adan.josegarcia@univ-lille.fr • adanjoga.github.io

Research Interests

o Data Clustering, Multi-view Clustering, Biclustering, Clustering Validation
o Evolutionary Computation, Nature-Inspired Metaheuristics
o Single- and Multi-objective Optimization

Education

Ph.D. in Computer Science	**2013 – 2017**	
Center for Research and Advanced Studies of the National Polytechnic Institute (Cinvestav)	México	
Master in Computer Science	**2010 – 2012**	
Center for Research and Advanced Studies of the National Polytechnic Institute (Cinvestav)	México	
Bachelor of Engineering	**2005 – 2010**	
Technological Institute of Culiacan	México	

Professional Experience

Research Fellow	**2021 – now**
Department of Computer Science, CRIStAL, University of Lille	France
Postdoctoral Research Fellow	**2019 – 2021**
Department of Computer Science, University of Exeter	United Kingdom
Postdoctoral Research Associate	**2018 – 2020**
Alliance Manchester Business School, University of Manchester	United Kingdom
Part-time Lecturer	**2017 – 2018**
Regional Centre for Teacher Training and Educational Research, CRETAM	México
Software Engineering Team Leader	**2012 – 2013**
SVAM International	México

Publications

JCR-indexed Journal Articles

[1]: **A. José-García**, J. Handl, W. Gómez-Flores, M. Garza-Fabre. *An Evolutionary Many-objective Approach to Multiview Data Clustering.* Applied Soft Computing, 2021. DOI: 10.1016/j.asoc.2021.107425

[2]: A. Ezugwu, A. Shukla, **A. José-García**, et al. *Automatic Clustering Algorithms: A Systematic Review and Bibliometric Analysis of Relevant Literature.* Neural Computing and Applications, 2020. DOI: 10.1007/s00521-020-05395-4

[3]: A. Siegmund, B. Fu, **A. José-García**, et al. *Study and Research on Detection of Fiber Defects using Keypoints and Deep Learning.* International Journal of Pattern Recognition and Artificial Intelligence, 2020. DOI: 10.1142/S0218001421500166

[4]: **A. José-García**, W. Gómez-Flores. *Automatic Clustering Using Nature-Inspired Metaheuristics: A Survey.* Applied Soft Computing, (41): 192–213, 2016. DOI: 10.1016/j.asoc.2015.12.001

[5]: **A. José-García**, I. Lopez-Arevalo, V. J. Sosa-Sosa. *A Rule-based Approach for Topic Maps Learning from Relational Databases.* Expert Systems 32 (5): 609–621, 2015. DOI: 10.1111/exsy.12113

Conference Proceedings

[1]: **A. José-García**, W. Gómez-Flores. A survey of Cluster Validity Indices for Automatic Data Clustering Using Differential Evolution. In *"GECCO'21: The International Conference on Genetic and Evolutionary Computation"*, 2021, `(to appear)`.

[2]: **A. José-García**, J. Handl. On the Interaction between Distance Functions and Clustering Criteria in Multi-objective Clustering. In *"EMO 2021: The International Conference on Evolutionary Multi-Criterion Optimization"*, p. 504–515, 2021.

[3]: **A. José-García**, J. Handl, W. Gómez-Flores, M. Garza-Fabre. Many-view Clustering: An Illustration Using Multiple Dissimilarity Measures. In *"GECCO'19: Proc. of the International Conference on Genetic and Evolutionary Computation"*, p. 213–214, 2019.

[4]: **A. José-García**, W. Gómez-Flores. Evolutionary Clustering Using Multi-Prototype Representation and Connectivity Criterion. In *"MCPR'17: Proc. of the 9th Mexican Conference on Pattern Recognition"*, p. 63–73, 2017.

[5]: **A. José-García**, I. Lopez-Arevalo, V. J. Sosa-Sosa. Building Topic Maps from Relational Databases. In *"CCE'12: Proc. of the 9th International Conference on Electrical Engineering, Computing Science and Automatic Control"*, p. 294–299, 2012.

[6]: **A. José-García**, H. Romero-Monsivais, C. Hernández, A. Rodríguez-Cristerna, I. Rivera-Islas, J. Torres-Jiménez. A Simulated Annealing Algorithm for the Problem of Minimal Addition Chains. In *"EPIA'11: Proc. of the 15th Portuguese Conference on Artificial Intelligence"*, p. 311–325, 2011.

[7]: A. Rodríguez-Cristerna, J. Torres-Jiménez, H. Romero-Monsivais, C. Hernández, I. Rivera-Islas, **A. José-García**. A Mutation-Selection Algorithm for the Problem of Minimum Brauer Chains. In *"MICAI'11: Proc. of the 10th Mexican International Conference on Artificial Intelligence"*, p. 107–118, 2011.

[8]: R. Zataraín-Cabada, M. L. Barrón-Estrada, V. Ponce Angulo, **A. José-García**. A Framework for Creating, Training, and Testing Self-Organizing Maps for Recognizing Learning Styles. In *"Edutainment'10: Proc. of the 5th International Conference on E-learning and Games"*, p. 53–64, 2010.

[9]: R. Zataraín-Cabada, M. L. Barrón-Estrada, V. Ponce Angulo, **A. José-García**, C. A. Reyes García. Identification of Felder-Silverman Learning Styles with a Supervised Neural Network. In *"ICIC'10: Proc. of the 6th International Conference on Intelligent Computing"*, p. 479–486, 2010.

[10]: R. Zataraín-Cabada, M. L. Barrón-Estrada, V. Ponce Angulo, **A. José-García**, C. A. Reyes García. A Learning Social Network with Recognition of Learning Styles Using Neural Networks. In *"MCPR'10: Proc. of the 2nd Mexican Conference on Pattern Recognition"*, p. 199–209, 2010.

Publications Under Review

[1]: **A. José-García**, R. Everson, et al. C3-IoC: A career guidance system for assessing student skills using machine learning and network visualisation. *International Journal of Artificial Intelligence in Education*, `(minor revision)`.

[2: **A. José-García**, W. Gómez-Flores. CVIK: A Matlab-based Cluster Validity Index Toolbox for Automatic Data Clustering Applications. *Neurocomputing*, `(under review)`.

Awards and Achievements

- **2019 – 2022**: Member of the Mexican National System of Researchers
- **2018 – 2019**: CONACYT Postdoctoral Fellowship
- **2013 – 2017**: CONACYT Postgraduate Fellowship
- **2010**: First Place in the Mexican National Fair of Science and Engineering 2010, with the project: "An adaptive social learning network with recognition of learning styles."
- **2007**: Professional IBM Certification in Object-Oriented Analysis and Designed (ID: P39LAM5071)
- **2007**: Sun Microsystems Certified Programmer for Java 2 Platform (ID: P68LAM50A5)

Teaching and Mentoring

Teaching Experiences

- **2021 (Spring term)**: Cluster Analysis, *Invited Lecturer*
  Cinvestav-IPN, México
- **2020 (Autumn term)**: Fundamentals of Machine Learning (COM1011), *Teaching Assistant*
  University of Exeter, UK
- **2017 – 2018**: Digital Technologies for Education, *Lecturer*
  Regional Centre for Teacher Training and Educational Research (CRETAM), México
- **2017 – 2018**: Online Productivity Tools for Education, *Lecturer*
  Regional Centre for Teacher Training and Educational Research (CRETAM), México

Academic Supervision (Software Engineering Projects)

- **2020 (6 months)**: A Cognitive Behavioural Therapy Mobile Application
  Mentoring and Project Supervisor, IoC Student Enterprise, University of Exeter, UK
- **2020 (6 months)**: A Telematics Driving Behaviour Application
  Mentoring and Project Supervisor, IoC Student Enterprise, University of Exeter, UK

Invited Talks

- **Oct 2019**: An Evolutionary Many-objective Approach to Multiview Data Clustering with Application to Breast Lesions Classification. *60 mins Conference*. Cinvestav-IPN, Tamaulipas, Mexico.
- **March 2019**: Multi-view Data Clustering An Illustration Using Multiple Dissimilarity Measures. *45 mins Conference*. Alliance Manchester Business School. The University of Manchester, UK.

Professional Services

Memberships

2019 – now: ACM professional member

2021 – now: IEEE membership

Reviewer of Journals and Conferences

- **IEEE Journals**: Transactions on Evolutionary Computation | Transactions on Cybernetics
- **Elsevier Journals**: Computers & Operations Research | Heliyon | Applied Soft Computing
- **Springer Journal**: Complex & Intelligent Systems
- **WILEY Journal**: Computational Intelligence
- The Genetic and Evolutionary Computation Conference (GECCO): GECCO 2021

Computer Skills

Programming: MATLAB, C/C++, Python, Java

Typography: LaTeX, Markdown, LibreOffice/OpenOffice, Microsoft Office

Web developer: Markdown, HTML, CSS, PHP, Javascrip

Miscellaneous: R, Git, MPI, CUDA, PThreads, `numpy`, `dlib`, `pandas`

References

- **Julia Handl** | julia.handl@manchester.ac.uk | (+44) 01613-063333 (Ext: 63333)
  Professor in Decision Sciences, *Alan Turing Fellow*
  Alliance Manchester Business School, University of Manchester

- **Richard Everson** | richard.everson@exeter.ac.uk | (+44) 01392-724065 (Ext: 4065)
  Professor of Machine Learning
  Department of Computer Science, University of Exeter

- **Wilfrido Gómez-Flores** | wgomez@cinvestav.mx | (+52) 834-107-0249
  Associate Professor of Machine Learning
  Department of Computer Science, Campus Tamaulipas, Cinvestav-IPN