## Adán José-García

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## **Research Interests**

- o Data Clustering, Multi-view Clustering, Clustering Validation
- Supervised Machine Learning
- Evolutionary Computation, Nature-Inspired Metaheuristics
- 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**

<b>Postdoctoral Research Fellow</b> Department of Computer Science, University of Exeter	<b>2019 – now</b> United Kingdom
Postdoctoral Research Associate Alliance Manchester Business School, University of Manchester	<b>2018 – 2020</b> United Kingdom
Technical Team Leader Svam International	<b>2012 – 2013</b> 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, 2020, (minor reviews).
- [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. 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
- [4]: 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

<sup>\*</sup> In addition to the listed refereed manuscripts, two journal articles and a conference paper are under review. Please, visit my website to find out more details about my papers under review, in preparation and technical reports.

#### Conference Proceedings....

- [1]: 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.
- [2]: 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.
- [3]: 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.
- [4]: 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.
- [5]: 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.
- [6]: 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.
- [7]: 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.
- [8]: 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.

- **A. José-García**, J. Handl. On the interaction between distance functions and clustering criteria in multi-objective clustering. *The 2021 International Conference on Evolutionary Multi- Criterion Optimization (EMO)*.
- **A. José-García**, W. Gómez-Flores. A comparative study of cluster validity indices using differential evolution. *Computers & Operations Research*.
- **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*.

#### **Awards and Achievements**

- o 2019 2022: Member of the Mexican National System of Researchers: Candidate Level
- o 2018 2019: CONACYT Postdoctoral Fellowship
- o 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."
- o 2007: Professional IBM Certification in Object-Oriented Analysis and Designed (ID: P39LAM5071)
- o 2007: Sun Microsystems Certified Programmer for Java 2 Platform 1.4 (ID: P68LAM50A5)

## **Teaching and Mentoring**

#### Teaching Experiences.....

- 2020 now: Fundamentals of Machine Learning (COM1011)
   Teaching Assistant, Autumn Term, University of Exeter, United Kingdom
- 2017 2018: Educational technologies, and Online productivity tools for education Lecturer, Regional Centre for Teacher Training and Educational Research, México

#### Academic Supervision (Software Engineering Projects)......

- 2020 now: A Cognitive Behavioural Therapy Mobile Application
   Mentoring and Project Supervisor, IoC Student Enterprise, University of Exeter
- 2020 now: A Telematics Driving Behaviour Application
   Mentoring and Project Supervisor, IoC Student Enterprise, University of Exeter

### **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.

Transactions on Cybernetics

o Regularly speaker in non-scientific talks to undergraduate students in Mexico.

#### **Professional Services**

# Memberships.....

2019 - now: ACM professional member

#### Reviewer of Journals....

- o IEEE Journals: Transactions on Evolutionary Computation
- o Elsevier Journals: Computers & Operations Research Heliyon
- WILEY Journal: Computational Intelligence

# **Computer Skills**

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

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

Miscellaneous: Git, MPI, CUDA, PThreads, numpy, dlib, R, HTML, CSS, Javascrip

#### References

- Richard Everson | richard.everson@exeter.ac.uk | (+44) 01392-724065 (Ext: 4065)
   Professor of Machine Learning
   Department of Computer Science, University of Exeter
- 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
- Wilfrido Gómez-Flores | wgomez@cinvestav.mx | (+52) 834-107-0249
   Associate Professor of Machine Learning
   Department of Computer Science, Campus Tamaulipas, Cinvestav-IPN